



The American University

Washington, D.C.

1972-73
Catalog





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**The American University
Bulletin:
Catalog Issue**

**Information as of
July 1972**

Regulations Subject to Change

The educational process necessitates change. This bulletin must be considered as informational and not binding on the University.

Each step of the educational process, from admission through graduation, requires appropriate approval by University officials. The University must, therefore, reserve the right to change admission requirements or to refuse to grant credit or a degree if a student does not satisfy the University in its sole judgment that he has satisfactorily met its requirements.

The American University Bulletin is prepared and published by The American University, Office of University Publications, Massachusetts and Nebraska Avenues, Northwest, Washington, D. C. 20016, monthly except July. Second class postage paid at Washington, D.C. 20016. Volume 48, Number 7, August 1972. Copies may be obtained by calling or writing the Director of Admissions.

Colleges and Schools of The American University

College of Arts and Sciences

School of Business Administration

School of Government and Public Administration

School of International Service

Washington College of Law

Lucy Webb Hayes School of Nursing

College of Continuing Education

College of Public Affairs

The University Senate and the Board of Trustees of The American University in April 1972 voted to establish a College of Public Affairs at The American University to emphasize and coordinate the University's extensive undergraduate and graduate programs in public policy studies and public affairs. The College of Public Affairs will embrace and strengthen the programs of the School of Government and Public Administration, the School of International Service, the Center for the Administration of Justice, and the Center for Technology and Administration. Program planning for the College is underway, and the College of Public Affairs is to be in full operation in September 1973.

In addition to strengthening existing programs of its components, the College of Public Affairs will further expand opportunities for innovative education afforded by the Washington location of The American University.

For further information on the College of Public Affairs, write the Office of Academic Development, The American University, Washington, D.C. 20016.

Cross References

Accounting	See School of Business Administration
Art Education	See Art
Computer Science	See Mathematics and Statistics
Computer Systems	See Technology & Administration, CCE
Correctional Administration	See Administration of Justice, CCE
Earth Science	See Chemistry
English	See Literature
English as a Foreign Language	See English Language Institute, CCE
Environmental Systems Analysis	See Technology & Administration, CCE
Finance	See School of Business Administration
International Business	See School of Business Administration
International Communication	See School of International Service & Communication
Journalism	See Communication
Language and Area Studies	See School of International Service & Language and Foreign Studies
Management Information Systems	See Technology & Administration, CCE
Marketing	See School of Business Administration
Medical Technology	See Biology
Music Education	See Music
Operations Analysis	See School of Business Administration
Operations Research	See Technology & Administration, CCE
Personnel	See School of Business Administration
Public Policy	See School of Government & Public Administration
Public Relations	See Communication, CCE
Real Estate and Urban Development	See SBA and Housing & Urban Development Institute, CCE
Theatre	See Speech Arts
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Urban Affairs	See School of Government & Public Administration

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1972-1973 Academic Calendar

<i>September 11</i>	Fall Semester classes begin
<i>November 23-25</i>	Thanksgiving holidays
<i>December 21</i>	End of Fall Semester
<i>January 15</i>	Spring Semester classes begin
<i>February 19</i>	Washington's Birthday holiday*
<i>March 12-17</i>	Spring vacation
<i>May 5</i>	Spring Semester ends
<i>May 13</i>	Fifty-ninth annual Commencement
<i>May 14-June 15</i>	Mini-Summer Session
<i>June 18-July 20</i>	First Five Week Summer Session
<i>June 18-August 10</i>	Eight Week Summer Session
<i>July 23-August 24</i>	Second Five Week Summer Session

*The University in keeping with Federal government policy, will observe Public Law 90-363 "Monday Holiday Law" which became effective January 1, 1971.

1972 CALENDAR

JANUARY 1972

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Correspondence Directory

Admission

Director, Office of Admissions, Asbury Building

Housing

Director of Residential Life, McDowell Hall

Scholarships and Loans

Director, Office of Student Aid, Mary Graydon Center

Part-time Employment

Director, Placement Office, Mary Graydon Center

Counseling

Director, Counseling Center, Mary Graydon Center

Program Information

Office of the Dean, the respective college or school

Records and Transcripts

Registrar, Asbury Building

International Student Advisor

International Student Office, Mary Graydon Center

Financial Transactions

Office of Student Accounts, Leonard Center

*To complete above
addresses, write:*

The American University
Massachusetts and Nebraska Avenues, N.W.
Washington, D.C. 20016

For additional information, phone, write or visit:

Office of the Director of Admissions
The American University
Massachusetts and Nebraska Avenues, N.W.
Washington, D.C. 20016
Telephone: (202) 686-2000

Degree Programs

College of Arts and Sciences

Associate in Arts

General Studies

Bachelor of Arts

American Studies

Anthropology

Art

Communication

Economics

Education—Elementary

History

Interdisciplinary Studies

Language (French, German,
Russian, Spanish)

Literature

Music

Philosophy

Physics

Psychology

Religion

Sociology

Speech Arts

Bachelor of Fine Arts

Bachelor of Music

Bachelor of Music Education

Bachelor of Science

Art Education

Applied Mathematics

Biology

Chemistry

Computer Sciences

Distributed Sciences

Interdisciplinary Studies

Mathematics

Medical Technology

Physical Education

Physics

Sociology

Speech Arts

Statistics

Master of Arts

Anthropology

Art History

Church Music

Communication

Economics

Education

History

Interdisciplinary Studies

International Communication

Language (French, German,
Russian, Spanish)

Language and Area Studies

Linguistics

Literature

Mathematics

Music

Philosophy

Physics

Religion

Speech Arts

Sociology

Statistics

Master of Education

Master of Fine Arts

Master of Science

Biology

Chemistry

Physics

Master of Science in Science Teaching

Doctor of Education

Doctor of Philosophy

Anthropology

Chemistry

Economics

Education

History

Literary Studies

Mathematics

Philosophy

Physics

Psychology

Sociology

Statistics

Degree Programs *(continued)*

School of Nursing

Bachelor of Science

School of Business Administration

**Bachelor of Science in
Business Administration**

- Accounting
- Business-Economics
- Computer Systems
- Finance
- Interdisciplinary Studies
- Marketing
- Personnel
- Urban Development

Master of Business Administration

- Accounting
- Business-Government Relations
- Employee Relations
- Financial Management
- International Business
- Managerial Economics
- Marketing
- Operations Analysis
- Real Estate
- Transportation

Master of Science in Real Estate and Urban Development Planning
Doctor of Philosophy

School of Government and Public Administration

Bachelor of Arts

- Interdisciplinary Studies
- Political Science

Master of Public Administration

- Public Policy
- Urban Affairs

Bachelor of Science

- Interdisciplinary Studies
- Political Science

Doctor of Philosophy

- Government
- Public Administration

Master of Arts

- Government

School of International Service

Bachelor of Arts

- International Studies
- Interdisciplinary Studies
- Language and Area Studies

Master of International Service

Doctor of Philosophy

- International Studies

Master of Arts

- International Studies
- Language and Area Studies
- Area Studies

College of Continuing Education

Associate in General Studies

- Social Studies
- Technology of Management

Associate in Administration of Justice

Associate in Law Enforcement

Bachelor of Science in General Studies

- Social Studies
- Technology of Management

Bachelor of Science in Administration of Justice

Bachelor of Science in Law Enforcement

Master of Science in Teaching

Master of Science in Administration of Justice

Master of Science in Correctional Administration

Master of Science in Technology of Management

Master of Science in Public Relations

Washington College of Law

Juris Doctor (see separate catalog of the College of Law)

Introduction

Maximum freedom—High standards

EDUCATION AT THE AMERICAN UNIVERSITY is based upon a heritage of flexibility—a readiness to depart from traditional patterns when change is necessary. The University seeks new roads to learning which offer maximum freedom of choice to the student while maintaining high academic standards. A private institution, The American University enjoys the freedom to experiment as it recognizes an obligation to lead in the search for education firmly based on the past and relevant to the present. The American University intends to instill in its students an understanding of man and his environment, a desire to contribute to society, and a determination to improve the quality of life.

The traditional academic disciplines are maintained by The American University, but learning is enriched through an interdisciplinary approach to education which emphasizes the interrelationships among the disciplines.

The American University is an urban university where students encounter at first hand the problems and the opportunities of modern society. Because the University is located in Washington, its students are exposed to an environment which President John F. Kennedy characterized as "a city devoted to the making of history and to the conduct of the public's business."

History

The American University was founded by Methodist Bishop John Fletcher Hurst as a graduate school of history and public affairs. It was chartered by Congress in 1893, officially dedicated in 1914 and awarded its first degrees in 1916. Although 78 years old, The American University is a young university, experiencing its greatest growth during the last two decades. Enrollment and number of degrees have climbed steadily. In 1914, the first class numbered only 28; in the fall of 1971, more than 15,000 students were enrolled from 50 states and 80 foreign countries. In 1916, The American University conferred two degrees at its first commencement; in 1971, the University awarded degrees to 2,304 students.

There has been a corresponding growth in the number of schools and colleges as the University responded to educational demands. In 1925, an undergraduate program was begun with establishment of the College of Liberal Arts, now the College of Arts and Sciences. Subsequent years saw the establishment, in chronological order, of the Washington College of Law (1949), School of Business Administration (1955), School of Government and Public Administration (1957), School of International Service (1958), College of Continuing Education (1964), and the Lucy Webb Hayes School of Nursing (1965), and the College of Public Affairs (1972).

Physical Facilities

There are fourteen classroom buildings, five residence halls, and an inter-denominational religious center in addition to various administrative facilities on the sixty-six acre campus.

Arts Center

The Watkins Art Building, which opened in 1962, contains studios, lecture rooms and graphic arts workshops. Teaching studios, practice rooms and a recital hall are found in the Kreeger Music Building. The final unit of the Arts Center will house the Speech Arts Department and a new theater to replace the Clendenen Theater which, together with the Woods-Brown Amphitheater, provides stages for campus productions and convocations.

Technical Facilities

The language laboratory in Asbury can serve more than one hundred students simultaneously. Dial-Access facilities have been installed in the School of International Service, the Music Department, Mary Graydon Center, and the residence halls as well as in the student lounge in the Department of Languages and Linguistics. Students may listen to music, guest speakers, or classroom lectures in addition to language tapes. Dial-Access operates twenty-four hours a day.

Almost all buildings on campus have closed circuit television capability for conferences, teacher training, and production and broadcasting classes. Radio and television production and broadcast studios and the campus radio stations, WAMU-AM and WAMU-FM, are located in the Broadcast Center. The FM transmitter permits a 50 mile broadcast radius.

Research Facilities

The University library receives 3,000 periodicals and contains 350,000 catalogued items. Included are excellent pre- and post-World War I materials, League of Nations and United Nations documents, the Peace Society Library, the Artemas Martin collection of rare materials on mathematics, the Friedrich collection on economics, the Franklin collection on pre- and post-World War II Germany, and a fine collection of European diplomatic papers. The library also has on microfilm the complete card catalog of the Tokyo Bunko Oriental Library of the National Diet Library and the University of Tokyo.

A computer listing of the library's serial holding is provided monthly. Materials not available in the University library may be obtained for faculty members and graduate students through the inter-library loan service.

Computation Center

The Computation Center serves the computer research and instructional needs of both faculty and students. It is supported by an IBM 360/40 computer system to which the Computation Center has access via a 2780 remote job-entry input/output unit. In addition, several time sharing terminals are available.

Languages used at the Computation Center include BASIC, COBOL, FORTRAN and PL/1. Each semester members of the Computation Center staff offer informal non-credit courses in selected computer languages as well as seminars in those software package programs available at the Center. New acquisitions, as well as announcements of courses, are promulgated to faculty, staff and students through a monthly newsletter.

Recreational Facilities

Most of the University's recreational facilities are located in Leonard Center where students enjoy billiards, bowling, sauna baths, swimming, and the use of a gymnasium. Outdoor recreational facilities include eight newly surfaced tennis courts and a standard regulation track.

Student Union

The hub of campus life is Mary Graydon Center which contains faculty and student dining facilities and a snack bar. The Center houses Student Life administrative offices which include Placement, Student Activities, Financial Aid, and Counseling. Offices and meeting rooms for student organizations such as the Student Confederation are also available. There is a commuter lounge where students may gather to study or relax.

Alumni Association

The alumni, in excess of 20,000, represent The American University in all 50 United States, and in many foreign countries.

Through the annual Alumni Fund, the alumni support scholarships for undergraduate and graduate students and contribute to the operating expenses of the University.

The area chapters in major cities and groups of alumni with special interests in common provide a channel for student recruiting, job placement assistance, a friendly welcome to alumni new to the city, continuing education with visiting faculty, and fellowship.

Through elected officers, the National Board of Governors and committees, the association makes available to the University and the students the expertise, experience and influence of alumni established in their communities and professions.

Students, Faculty, and Enrollment

The student body of the University is composed of students from all 50 states and approximately 80 foreign countries. In the 1971-72 academic year, full-time undergraduates numbered 5,259 (including 117 Washington Semester students) and part-time undergraduates numbered 993. A total of 3,944 enrolled for full-time and part-time graduate study and more than 4,303 students attended on a non-degree basis either on the campus or at various metropolitan Washington off-campus locations.

Schools and Colleges

- College of Arts and Sciences
- Washington College of Law
- School of Business Administration
- School of Government and Public Administration
- School of International Service
- College of Continuing Education
- Lucy Webb Hayes School of Nursing
- College of Public Affairs

Washington Semester Program—120 participating institutions

This is a program in which participating institutions throughout the nation cooperate with the University, enabling honor students from other schools to come to AU for one semester to study government in action through seminars, independent research, and field trips to government agencies.

Faculty 1971-72

- Full-time—362
- Part-time—408

Residence Facilities 1971-72

- Women (Anderson Hall, Hughes Hall, Letts Hall)—1,600
- Men (Leonard Hall, McDowell Hall, Hughes Hall)—1,000

Degrees Conferred—Class of 1971

School or College	Associate	Bachelor's	Master's	Ph.D.	Ed.D.	J.D.	Total
College of Arts and Sciences	3	656	285	30	11	—	985
School of Business Administration	1	177	132	8	—	—	318
School of Gov. and Public Admin.	1	234	146	9	—	—	390
School of International Service	—	111	71	28	—	—	210
College of Continuing Education	51	74	111	—	—	—	236
Washington College of Law	—	—	—	—	—	154	154
Nursing	—	11	—	—	—	—	11
Total	56	1,263	745	75	11	154	2,304

Graduate Study

Graduate study at The American University offers unusual opportunities with its varied courses and stimulating environment. Specific degree programs and requirements are described in the following pages.

The Office of Graduate Studies and Research administers graduate programs under regulations set by the University Senate and by individual teaching units. Increasingly, an emphasis is being placed upon adapting degree programs to fit individual student needs. Usually this is done within traditional discipline majors, but several interdisciplinary degree programs have also been instituted and are described in this *catalog*. Occasionally, the student's needs best can be met through an interdisciplinary degree program spanning two or three teaching units. In such cases, the student applies to one department which is responsible for coordinating the various parts of the graduate degree to assure its quality and appropriateness for the student.

Graduate study at The American University is diversified, not only in its range of fields of study, but also through the diversity of the student body. Enrollment of students from minority groups has grown from three percent to over ten percent of the total graduate student population in the past three years and reflects the University's commitment to serving the total needs of the society and its population. Additional diversification is provided through the facilities and opportunities for graduate study through the Consortium which permit graduate students at The American University to enroll for degree credit in graduate courses at George Washington, Georgetown, Catholic and Howard Universities.

Accreditation

The American University is accredited by the Middle States Association of Colleges and Secondary Schools and the University Senate of The Methodist Church. It is a member of the Association of American Colleges, the Association of Urban Universities, the Association of University Evening Colleges, the National Intercollegiate Athletic Association, and is approved by the American Association of University Women. A charter member of the Council of Graduate Schools in the United States, the University is also a member of the Midwest Conference on Graduate Study and Research.

The School of Business Administration is a member of the Middle Atlantic Association of Colleges of Business Administration and charter member of the American Assembly of the American Association of Collegiate Schools of Business.

The Washington College of Law is a member of the Association of American Law Schools and approved by the American Bar Association.

The Department of Education in the College of Arts and Sciences is a member of the American Association of Colleges for Teacher Education and accredited by the National Council for Accreditation of Teacher Education in both elementary and secondary areas.

The Department of Music in the College of Arts and Sciences is a member of the National Association of Schools of Music.

The Department of Chemistry, College of Arts and Sciences, is accredited by The American Chemical Society.

The School of Nursing is accredited by the National League for Nursing and approved by the Nurses Examining Board of the District of Columbia.

Admission Information

Admission for Undergraduates

Application for admission to undergraduate degree programs may be made for a given fall or spring semester.

In summer sessions undergraduate degree applicants may take courses as non-degree students. Such course work may be transferred to degree status when and if it is granted. If degree status is not granted, the student may not take additional courses in any category at the University.

The applicant is responsible for requesting that official transcripts and test scores be sent directly from the issuing institution to The American University Office of Undergraduate Admissions.

Freshman Admission

Freshman applications and all supporting documents must be on file in the Undergraduate Admissions Office by the following dates:

For Fall

March 1

For Spring

December 1

Eligibility

A graduate of an approved secondary school who has a minimum grade average of "C" or the numerical equivalent, who has completed 16 acceptable units, 15 of which are academic or college preparatory in nature and include 4 units in English and 2 units in mathematics, who ranks in the upper half of the graduating class, and who achieves acceptable scores on the Scholastic Aptitude Tests of the College Entrance Examination Board will be considered for freshman standing. Applicants to the College of Arts and Sciences must also have completed two years of a foreign language.

How to Apply

The applicant is required to submit the application forms and a non-refundable application fee of \$15. Forms may be obtained by writing or telephoning the Office of Undergraduate Admissions.

The secondary school should be requested to forward an official transcript directly to the Office of Undergraduate Admissions as soon as possible.

The following College Entrance Examination Board tests should be taken no later than January, and the Board should be requested to send official score reports directly to the Office of Undergraduate Admissions:

(1) *The Scholastic Aptitude Test* is required.

(2) *The English Achievement Test* is required.

(3) Applicants who plan to continue the study of a foreign language which was begun in secondary school may wish to submit scores on the appropriate Foreign Language Achievement Test, to be used in placing the student at the proper level of work. The test should be taken as early as January if possible, but no later than May.

(4) Additional Achievement Test scores may be submitted (no later than May) at the discretion of the applicant. It is recommended that the Mathematics Achievement Test (either Level I or Level II) be taken by any freshman applicant whose intended major program of study will require the completion of course work in mathematics and/or statistics as a part of the major, either as a tool requirement of the major or as a related requirement.

(5) Applicants are urged to complete the Student Descriptive Questionnaire when registering for the Scholastic Aptitude Test.

Students who are participating in English, mathematics, or foreign language courses under the Advanced Placement Examination Program of the College Entrance Examination Board and who plan to submit their examination results for credit and/or placement consideration need not take the Achievement Tests in the areas covered by this program.

Last, a teacher's recommendation form, supplied with the application for admission, should be presented, together with an envelope addressed to the Office of Undergraduate Admissions, to a teacher of the applicant's choice for completion and forwarding to The American University.

School of International Service Freshman Applicants

In addition to standards and procedures pertaining to undergraduate admission at The American University, candidates for admission to the School of International Service must present evidence of outstanding personal and academic qualifications. Eligibility for freshman consideration normally requires (a) at least a "B" average in secondary school, (b) a rank in the top quarter of the secondary school graduating class, and (c) College Entrance Examination Board Scholastic Aptitude Test scores totalling at least 1150. Other factors considered are leadership qualities, character, and personal interests. Approximately 75 students entered the freshman class last year.

Early Admission

The American University offers an opportunity for Early Admission to freshman applicants whose superior ability, academic achievement, and general maturity indicate that they are ready to initiate collegiate work a year earlier than normal. Such applicants must have fulfilled the general requirements set out above.

The Director of Admissions will be pleased to send information to secondary school principals, counselors, or individual students inquiring about such admission. Each individual is considered on his own merits. However, major factors important to evaluation are:

- (1) The secondary school record, with special reference to grades achieved and the pattern of courses taken.
- (2) Performance on the College Entrance Examination Board Tests.
- (3) The recommendation of the secondary school principal and counselors.
- (4) A letter from the applicant stating the reasons for seeking Early Admission.
- (5) Possibly an interview with a screening committee. Occasionally, additional tests of ability, evidence of maturity, or interest may be requested.

Notice of Admission

Strongly qualified applicants, whose credentials are complete, will be notified during December, January, and February by a preliminary notice of acceptance intended to advise them that their admission has been approved contingent upon satisfactory completion of the senior year's program. Instructions for reply will be sent on or about April 1.

Applicants for whom all required admission material and supporting documents are on file by March 1 will receive one of the following on or about April 1:

- (1) *Notice of Acceptance* and the corresponding instructions for reply, or
- (2) *Alternate Notice* indicating that they are on the waiting list for further consideration if space permits, or
- (3) *Notice of Denial*.

Deposit

Applicants who are admitted and who plan to attend The American University will be required to pay a non-refundable tuition deposit of \$100. If on-campus housing accommodations are desired, an additional \$100 deposit must be paid. Details concerning the deposits are furnished with the instruction for reply. See also the section in this *catalog* on *RESIDENCE FACILITIES*.

Advanced Placement

By the following means freshman applicants may earn advanced standing credit which may be used toward fulfilling degree requirements:

(1) *The College Entrance Examination Board's Advanced Placement Program*
In some secondary schools enriched courses are offered under this program. On the basis of scores achieved in the special examinations given, the applicant may be granted actual college credit, or placement in college courses.

(2) *The College Level Examination Program*
Credit may be earned for superior performance in the following *Subject Matter Examinations*:

American Government	Introductory Calculus
English Composition	Introductory Economics
General Chemistry I & II	Introductory Sociology
General Psychology	Marketing
	Test and Measurements

For information about this program, write:

The College Level Examination Program
Box 1821
Princeton, New Jersey 08540

(3) *Credit earned while in attendance in a regionally accredited college or university either in a summer session or during the regular school year.* If, however, such course work was used to fulfill required secondary school work, no college credit will be granted. Applicants must have an official transcript of the work completed sent directly to the Office of Undergraduate Admissions. Credit may be earned in a combination of the above programs, except that duplicate credit is not given.

Equivalency Diplomas

Holders of equivalency diplomas issued by state Departments of Education are eligible for consideration as freshmen but are subject to an entrance examination at the direction of the Office of Undergraduate Admissions.

Veterans or present members of the armed forces who have taken the General Education Development Test, the Comprehensive College Test, or the General Examination of the College Level Examination Program, should apply to their state Department of Education for an equivalency diploma. Official certification of the diploma should be sent by the state Department of Education directly to the Office of Undergraduate Admissions.

Admission for Transfer Students

Candidates who have at any time been in full-time attendance at another college-level institution or who have completed the equivalent of one full-time semester's work by part-time attendance, are considered as transfer applicants.

Applications and all supporting documents must be on file in the Office of undergraduate Admissions by the following dates:

<i>For Fall</i>	<i>For Spring</i>
June 1	December 1

Eligibility

To be considered for transfer admission applicants normally should have maintained a minimum "C + " average or the equivalent at a regionally accredited collegiate institution, and should be in good academic and social standing at the school previously attended.

Transfer students may normally expect to receive credit for courses taken at regionally accredited collegiate institutions if the courses were completed with grades of A, B, C, or the equivalent of P on a pass-fail system (where P is specifically designated as indicating a quality of work no lower than C on a conventional grading scale), and if the courses are comparable with those offered at The American University. Courses accepted for transfer will not be included in the grade-point average to be maintained at The American University, but they will count toward the total number of courses required for graduation, with the following conditions:

(1) No more than 60 semester hours, or the equivalent, of course work completed in a college-transfer program at a two-year college may be accepted at The American University.

(2) A maximum of 30 semester hours, or the equivalent, may be accepted on transfer for a combination of relevant work completed satisfactorily (a) in armed services school courses recom-

mended for baccalaureate credit by the American Council on Education, or (b) for correspondence or extension courses completed through the United States Armed Forces Institute.

(3) An additional 30 semester hours, or the equivalent, may be granted for relevant work completed in non-degree, extension, or correspondence courses offered through a regionally accredited institution which accepts the credit for its own degrees.

(4) A minimum of 30 semester hours or the equivalent must be completed in residence at The American University and all departmental requirements must be completed.

Transfer to the School of International Service

Students from other regionally accredited collegiate institutions and those in other majors at The American University, who have completed the freshman year, are eligible to apply for admission to the School of International Service. Applicants must have maintained a cumulative "B" average.

How to Apply

Transfer applicants must submit the appropriate forms provided by the Office of Undergraduate Admissions and a non-refundable application fee of \$15. In addition, transfer applicants must request that *all* previous colleges and secondary schools send transcripts to the Office of Undergraduate Admissions at The American University. *All institutions attended must be reported whether or not credit was earned or is desired by the applicant.*

If College Entrance Examination Board tests have been taken within the past five years, the candidate must request the Board to send official scores directly to the Office of Undergraduate Admissions at The American University.

Notification of Admission

Decisions on transfer applications are not made on less than one full year's work (approximately 30 semester hours). In exceptional cases a tentative admission is granted on the basis of an excellent first semester's work plus a satisfactory secondary school record and College Board scores. As soon as possible after receipt of all required forms and credentials, The American University will notify the applicant for the spring semester of his admission status. Candidates for fall are cautioned to expect no notification before mid-June because of the demands and schedule of the freshman admission program.

Deposit

Transfer applicants who are admitted to The American University and who plan to attend are required to pay a non-refundable tuition deposit of \$100. If on-campus housing accommodations are desired and available, an additional housing deposit of \$100 must also be paid. Details concerning the deposits are furnished with the instructions for reply. See also the section on *RESIDENCE FACILITIES* of this catalog.

Admission for Part-time Undergraduate Degree Students

Any student employed for more than 20 hours a week is expected to register as a part-time student and should enroll for no more than $2\frac{3}{4}$ courses or the equivalent per semester. Students may also register part-time for reasons other than employment.

The applicant considering application for part-time study in a degree program is cautioned that he may be unable to complete the necessary course work for the degree in evening classes only. Before applying, he should consult the department chairman of his proposed major to ascertain if the required courses will be available to him.

Eligibility

Part-time degree applicants are required to meet the same standards for admission as full-time applicants.

How to Apply

The applicant for part-time undergraduate study should follow the instructions under either *Admission for Freshman* or *Admission for Transfer Students*, whichever is appropriate, with the following exceptions pertaining to College Board tests:

(1) If the applicant has taken College Board tests within the past five years, he is requested to contact the College Entrance Examination Board, Box 592, Princeton, New Jersey 08540 or Box

1025, Berkeley, California 94701 to request that official scores be sent directly to The American University Office of Undergraduate Admissions.

(2) If the applicant completed secondary school within the past two years and did NOT take College Board tests, he must arrange to do so. Information on how to apply may be obtained from the College Entrance Examination Board address given in (1) above.

(3) If the applicant completed secondary school MORE THAN two years ago and did NOT take College Board tests, he may be asked to take an alternate examination at the direction of the Office of Undergraduate Admissions of The American University.

Campus Visits and Interviews

Prospective students are invited to visit the University but are not required to do so as a part of the admission requirements. The student is asked to make an appointment with the Office of Undergraduate Admissions three weeks in advance if by mail, two weeks if by phone.

Prospective freshmen may participate in group conferences conducted by an admission counselor, who will review admission policy and procedure, and answer questions about the University. Applicants should be prepared to present a brief resume of their academic qualifications, i.e., academic average, College Board scores, and rank in class.

Campus tours are available for visitors after the conferences.

Students attending another college or university who are interested in transferring to The American University may make appointments in advance for individual conferences with admission counselors. A transfer applicant should have an official transcript forwarded to the Office of Undergraduate Admissions prior to his visit or bring a personal copy for use in the conference.

The Office of Undergraduate Admissions does not arrange classroom visits for prospective students. However, a visitor may attend classes with a friend enrolled at the University if permission of the professor has been granted in advance.

The University does not have facilities for the accommodation of overnight visitors.

Re-Admission for Undergraduates

An undergraduate student whose study at the University is interrupted for any reason for a period of one semester or more (excluding the summer sessions) must submit a formal application for re-admission to the Office of Undergraduate Admissions at least two months in advance of the beginning of the semester or summer session in which courses are desired, unless written permission to study at another collegiate institution has been secured in advance, or the student has been granted an official leave of absence. See the section *Transfer Credit* on page 34 of this catalog. If re-admission is approved, the student is subject to the academic requirements and regulations in effect at the time of his re-admission.

Graduate Admission

General

The minimum University requirements for consideration for admission to graduate study are as follows (refer to individual departments or schools for specific minimum requirements):

(1) possession of a bachelor's degree from a regionally accredited college or university

(2) a 2.5 cumulative grade point average, based on a four point system, in the undergraduate program. Cumulative grade point averages are made on the latter part of the bachelor's degree program.

In seeking admission to advanced degree programs the student is expected to have maintained a cumulative grade point of 3.0 in each institution at which graduate work has been attempted. This grade point average does not apply, however, if the following stipulations are met:

(1) a 3.3 cumulative grade point average in a master's degree program completed at an accredited institution, or

(2) a 3.5 cumulative grade point average in 12 or more credit hours of a master's degree program still in progress at such an institution at the time of application evaluation.

Individual departments may require satisfaction of other criteria or requirements in addition to, not in lieu of, the University's minimum requirements. See these degree programs for these special requirements.

In general, all applicants are requested to have applications and official transcripts sent directly from all colleges previously attended to the Graduate Admissions Office by June 1 for the fall semester (January 15 if applying for financial aid) and November 1 for the spring semester.

GRADUATE ADMISSION REQUIREMENTS OTHER THAN UNIVERSITY REQUIREMENTS

	Letters of Recomm.		G.R.E.		Other	Other	G.R.E.		Letters of Recomm.		
	PhD	MA	Apt	Adv			Adv	Apt	MA	PhD	
Anthropology	†† /	** /	*	*			/	/	/	/	Philosophy
Biology		/							/	/	Physics
Communication		/			≠ Interview		/	/	/	/	Psychology
Economics	/	*	*					*	** /	†† /	Sociology
Education	†† /	/	/	or *	Miller Analogies Test				/		Speech Arts
Fine and Applied Arts		** /			Portfolio to Dept.	Adm. Test For Grad. Study in Business			*	/	Business Administration
History	/	/	†† /	†† /		MA Pre-req. for PhD	/	PhD	*	†† /	Government and Publ. Administ.
Literature	/	/	*		Interview recommended				/		Technology of Management C.T.A.
Mathematics	/	/							MS		
Music		/			Tapes or Compositions		/	MA	/	/	International Service
						Test of English as For. Lang.					International Students

* Recommended not required. †† Unless M.A. earned in Department.

** Unless B.A. earned in Department.

≠ Applicants for Department of Communication should contact Departmental Office.

The above requirements are subject to change at any time.

If there are different requirements at the time of application candidates will be notified.

Entrance Examinations

Various schools and departments within the University require separate examinations such as the "Graduate Record Examination" or the "Admission Test for Graduate Study in Business" for admission. Other supporting documents such as letters of recommendation or evidence of professional experience may also be required for admission.

Provisional Standing

Each school or department within the University may admit to provisional standing a limited number of students who do not meet the minimum standards of either the University or the teaching unit. By the end of one full semester of full-time study or by the first 12 hours of part-time study the student will be evaluated by his college, school, or department. Continuation in the graduate program will be permitted upon favorable appraisal of the student's performance.

The provisional admission status of a graduate student who does *not* give satisfactory evidence of his capabilities will be cancelled.

Clearance

A student who has applied for admission to a degree program must clear his admission status before registering for a course. Students who have not received notification of status should inquire directly at the Office of Graduate Admissions before attempting registration. A provisional student will be designated as such at the time he is admitted.

Candidates for graduate degrees currently enrolled will be subject to those academic regulations in force at the time of their admission.

Graduate Re-Admission

Continuation in the degree program may be granted once for a period of three years in the light of the requirements of the particular degree in effect at the time of re-admission, and may involve taking additional courses and/or other work. When a student is re-admitted under these circumstances, the length of time he will be allowed to complete his degree requirements and any additional courses, examination, or other requirements which are deemed necessary by the teaching unit, will be specified.

Any degree calling for additional prerequisite courses has the Statute of Limitations (page 30) extended in the proportion that the prerequisite requirements bear to the graduate credit requirements.

Transfer Credit

Credit may be considered for transfer at the time of admission, provided the admission is not provisional, or at advancement to candidacy, or other specific times established by the teaching unit.

Summer Sessions

Applicants for summer sessions, who do not plan to pursue a degree at The American University, should consult the section in this *catalog* entitled "Summer Sessions" for separate application instructions.

International Student Admissions

Foreign students admitted as degree or non-degree students are required to send official transcripts directly from secondary schools and/or colleges, to the Office of Graduate Admissions. Proficiency in the Test of English as a Foreign Language is also required. The University may also require additional tests to determine such proficiency.

A non-immigrant student status ("F-1"), as outlined by the United States Department of Justice, requires the student to pursue a full course of study each semester during each period of enrollment. Students who fail to observe this regulation will not receive a "Certificate of Eligibility" (Form I-20) or any other letter of certification.

Students in the Exchange Visitor Visa (J-1) category requesting transfer to The American University's Private Exchange Visitor Program from another program number must obtain approval from the Foreign Student Advisor before admission to the University becomes valid.

Admission for Non-Degree Students

General

The non-degree program of The American University enables students to pursue courses of study without first being accepted as regular degree candidates. Through the non-degree program,

the College of Continuing Education is able to meet a wide variety of educational needs of students who for academic, administrative, or other reasons find it to their advantage to enroll in a non-degree status. A non-degree student may apply for admission to courses of his choice for which he has the necessary background and qualifications. Such courses may be taken for professional preparation or personal enrichment on either a credit or audit basis.

Non-degree students are not permitted to take courses under the Consortium of Universities arrangement.

A non-degree student is not eligible to enroll in a .600 or .700 level course unless he secures in advance the written permission of the dean or department chairman of the school or college which has jurisdiction over the course. He must also have approval of a non-degree advisor.

Foreign students registering in the English Language Institute (ELI) please refer to the section for English Language Institute.

Enrollment

A non-degree student ordinarily may not enroll for more than three courses in any given semester. If he is employed full-time, he may not register for more than two courses. However, a non-degree student may attend The American University as a full-time, non-degree student if he meets one or more of the following criteria:

(1) has a bachelor's degree and is pursuing a course of study leading toward a teaching certificate;

(2) has a bachelor's degree and is making up undergraduate prerequisites leading toward an advanced degree at the University (student must obtain approval of the dean or department chairman prior to registration);

(3) is in good standing at another institution and has been granted permission by his dean or other appropriate official to attend The American University for the purpose of transferring credits received to his degree program at his home institution;

(4) is pursuing a certificate program sponsored by a governmental or private agency which requires the student to attend full-time.

In all cases students must obtain permission from the Dean of the College of Continuing Education or a member of the Advisement Staff.

All non-degree students are held to the same level of academic standards as degree students. Non-degree students who do not maintain a "C" average (2.00 on a 4-point scale) will be placed on academic probation. If the student does not bring his average up to a 2.00 after an additional year's work, he will be dismissed from the University.

Eligibility

The primary mission of the College of Continuing Education is to serve the educational needs of students who are 21 years of age or older. A person under 21 may be admitted, however, if he:

(1) will be 21 during the semester in which he plans to enroll;

(2) desires to take courses under an undergraduate certificate program;

(3) is in good standing at another institution and has been granted permission by his dean or other appropriate official to attend The American University for the purpose of transferring credits received to his degree program at his home institution;

(4) is a high ability high school student who has completed the 11th grade and is recommended by his counselor or principal to attend The American University. The student so qualified must submit his high school transcript and receive approval for course attendance from the teaching unit concerned as well as approval of the College;

(5) is entering the English Language Institute, Pride, or other programs or situations in which the College of Continuing Education considers it appropriate to admit students under 21 years of age.

There is no formal application required for admission to a non-degree program. The following, however, apply:

(1) Applicants must have been graduated from a regionally accredited college or university or have obtained a high school diploma, except as provided for in paragraph (4) above.

(2) Applicants who have attended another college or university during the past calendar year must be in academic good standing at the institution and entitled to an honorable dismissal. Proof of this must be substantiated in writing by a school official either at registration or prior to it. A student who has been dismissed from another college or university within the past two years must make an appointment with a member of the College of Continuing Education Advisement Staff for determination of his eligibility for non-degree admission.

(3) Students who have been dismissed or suspended from another institution within the past

calendar year are not eligible to enroll in the College of Continuing Education as non-degree students.

(4) Persons who have been denied admission to an undergraduate degree program at The American University may not register as non-degree students.

Transfer

Students wishing to transfer from a non-degree status at The American University to a degree status should make application through the Office of Admissions. Those students seeking undergraduate admission may apply for degree standing for a given fall semester only. If a student is accepted into an undergraduate degree program at The American University, he may transfer a maximum of thirty (30) hours (or the course equivalent) of credit from a non-degree program to the degree program.

Graduate students may apply for admission to a degree program for any semester. Twelve (12) hours of graduate work may be transferred into a graduate degree program from a non-degree program.

English Language Institute

Foreign students wishing to enroll in the English Language Institute on a full-time or part-time basis must have completed the equivalent of an American high school education (twelve years of schooling) or be at least 17 years of age at the time of enrollment. After filing an application, students who are accepted will be sent a formal letter of acceptance and a certificate of eligibility for a student visa if one is required (Form I-20). Information and course dates will be mailed upon request by writing or telephoning:

English Language Institute
College of Continuing Education
The American University
Washington, D.C. 20016
(202) 686-2197

Admission for International Students

The following regulations apply to all students who are not citizens of the United States, including students with permanent immigrant status.

Admission Procedures

All international students, whether applying for admission as degree or non-degree students, must arrange to have official transcripts sent from all secondary schools and/or colleges attended directly to the Office of Graduate Admissions. These documents should be sent well in advance of the semester for which the applicant seeks admission. Personal student papers, photostats, transcripts, or attested copies are not accepted for official evaluation purposes.

All international students whose native language is not English and who are applying for admission as undergraduate or graduate degree students must take the Test of English as a Foreign Language (TOEFL). Information regarding the procedure for taking this test may be obtained from: TOEFL, Educational Testing Service, Princeton, New Jersey 08540, U.S.A.

All international students whose native language is not English, whether degree or non-degree students, are required to take an English proficiency test at the University before their first registration. Freshman international students take a placement test in English.

All other undergraduate international students and graduate international students, as well as non-degree international students, take an English waiver examination prior to their first registration at The American University. If an international student's command of English is insufficient to follow the program in which he wishes to enroll, he will be required to take one or more special courses in English as a second language.

Visa Requirements

United States Department of Justice Immigration and Naturalization Service regulations governing non-immigrant "F-1" foreign students require foreign students in this category to pursue a full course of study while maintaining non-immigrant student status.

In compliance with the provisions under which this institution has been classified as a training agency for foreign students, The American University requires all non-immigrant "F-1" students to pursue a full course of study each semester during the period of their enrollment.

Under this regulation an undergraduate will be required to register for at least 3 courses and

a graduate student will be required to register for at least 9 credit hours of course work. Any modification of this requirement which results in a course load below these minimum requirements must be authorized by the Foreign Student Advisor in consultation with the Admissions Officer and the student's academic advisor.

Students who fail to observe the above requirements will be ineligible to receive a "Certificate of Eligibility" (Form I-20) or other letters of certification in support of their continuation in non-immigrant "F-1" student status.

All students bearing non-immigrant Foreign Student F-1 Visas are required to attend initially the educational institution which issued the "Certificate of Eligibility" (Form I-20) utilized in obtaining the student visa.

Students bearing non-immigrant Foreign Student F-1 Visas are reminded that transfer from one U.S. educational institution to another must be authorized by the U.S. Immigration and Naturalization Service.

Students in the Exchange Visitor Visa category (J-1) requesting transfer to the University's Private Exchange Visitor Program from another program number must obtain approval from the Foreign Student Advisor before admission to the University becomes valid.

Questions concerning U.S. Immigration and Naturalization Service regulations should be directed to the Foreign Student Advisor, Room 221, Mary Graydon Center.

Registration Procedures

In addition to the normal registration instructions, the following regulations apply to all international students, degree and non-degree:

All non-immigrant foreign students and students who do not possess full U.S. citizenship are required to obtain the signature of the Foreign Student Advisor at the time of registration for courses.

New international students, whether degree or non-degree, may not advance register for their first semester at the University. They must complete their first registration during the normal registration period.

International students may take courses in the University's Off-Campus Program, but registration must be completed on the campus.

English Language Institute

International students wishing to enroll in the English Language Institute either on a full-time or part-time basis must have completed the equivalent of an American high school education (12 years of schooling) or be at least 17 years of age at the time of enrollment. Students who are applying for admission to the English Language Institute for English only, need not take the Test of English as a Foreign Language (TOEFL). After filing an application, students who are accepted will be sent a formal letter of acceptance and a "Certificate of Eligibility" (Form I-20) for a student visa if one is required. Admission to workshops or courses in the English Language Institute in no way implies eligibility for admission to any program or course of study in other divisions of The American University.

Information and course dates will be mailed upon request by writing or telephoning:

English Language Institute
College of Continuing Education
The American University
Washington, D.C. 20016
(202-686-2197)

Tuition and Expenses

Tuition and General Fees

Charges per semester are as follows:

Undergraduate Students*	\$ 292	per course
For full-time students taking 4 courses	1,168	per semester
Graduate Students*	\$ 82	per credit hour
Non-degree Students	\$ 240	per course or
	80	per credit hour
Law Students*		
Full-time	\$ 1,095	per semester
Part-time	82	per credit hour
Off-Campus Programs		
Part-Time	\$ 168	per course or
	56	per semester hour

Given a continuation of the current economic conditions as well as the need to continue and accelerate academic growth of the University, it can be reasonably expected that tuition and fee increases within a 10-15% range will be required each foreseeable year beyond 1972-73.

Auditors pay the same charges as students enrolled for credit and are subject to all applicable special fees listed below.

Charges for institutes and other special courses may be found under their respective headings in the *Schedule of Classes*.

Residence Hall Charges per semester	\$ 295	triple occupancy
	\$ 345	double occupancy
Board Charges: 5-day contract per semester	\$ 250	

Special Fees (not refundable) Charges listed below are not included in Tuition and General Fees. Courses and laboratories may charge other special fees as listed in the *Schedule of Classes*.

Application fee for all degree students and for non-degree students		
seeking admission to a degree program	\$ 15	
Student Confederation activities fee	\$ 27	per semester
(mandatory for all undergraduate students taking three or more courses)		
Late registration (effective first day of semester)	\$ 10	
Late payment of financial obligations	\$ 10	
Meal ticket replacement fee	\$ 3	each
Returned check fee (for personal checks not honored by bank)	\$ 3	each
Health fee (not charged separately to full-time undergraduate students, required of all others who wish to use infirmary facilities)	\$ 20	per semester
Law Students' Fee	\$ 15	per semester
Admission testing	\$ 2	each test
Official transcripts (not available during registration periods)	\$ 1	each
Student Picture Identification Card	\$ 5	replacement
Undergraduate Student Resident Hall Association fee	\$ 1	per semester

Graduate Student Fees—The following charges are applicable to graduate students only:

Maintaining matriculation fee (not refundable)	\$ 50	
Comprehensive examinations		
Master's and Doctoral		
For each examination	\$ 10	each
Additional fee if <i>in absentia</i>		
Master's	\$ 100	
Doctoral	\$ 200	
Microfilming of thesis or case studies		
Master's thesis and case studies	\$ 25	
Doctoral dissertation	\$ 35	
Graduate Council fee	\$ 2	

* For the purpose of determining "full-time" status, non-credit courses will be included in and equated with credit courses according to the number of hours of scheduled class meetings per week.

Deferred Payment Plan

Students registered for a minimum of one course (undergraduate) or three semester hours (graduate) of course work during the semester whose total charges are more than \$180 after deducting all forms of tuition assistance may elect to use a deferred payment plan. Details are published each semester in the *Schedule of Classes*.

Tuition Cancellation (Refunds)

A pro-rated cancellation of tuition on a descending percentage basis is afforded during the first six weeks of the Fall and Spring semesters in the event of withdrawal from the University for any reason. For more detailed information please refer to the current *Schedule of Classes* or contact the Office of Student Accounts.

Financial Aid

The American University has a varied program of financial aid for undergraduate students (including transfer students) of scholarships, low-interest long-term loans, Educational Opportunity Grants, part-time employment, or any combination of these resources. The University participates in all the federal aid programs for which it is eligible, including National Defense Education Act (NDEA) loans, Nursing Student Loans and Scholarships, Cuban loans, Law Enforcement Education Program loans and grants, Educational Opportunity Grants (EOG), and the college work-study program.

Entering freshmen and junior college graduates are eligible to apply for scholarships, but transfer students are not eligible for scholarships until they have completed two semesters of work at the University. However, they are eligible for NDEA loans, EOG's, and work-study employment on admission.

Financial aid is awarded on the basis of the student's academic performance, financial need, and qualities of leadership and citizenship. NDEA loans, EOG and work-study are based primarily on need.

In addition to the Application for Financial Aid, the Parents' Confidential Statement must be filed by all applicants who are 25 and under and supported by their parents. If the applicant is under 25 and independent, married or single, he must file an independent student's budget sheet along with a notarized statement from his parents indicating that no support has been given, nor was he claimed as a tax deduction within the previous college year, nor will he be claimed as a tax exemption nor given any aid during the year the aid is required. If the applicant is over 25 and independent, married or single, and not supported by parents nor claimed by parents as a tax deduction for the previous college year, he must file an independent student's budget sheet.

Applications and supporting credentials for all types of financial aid, including NDEA loans, must be filed by February 1 (entering freshmen), March 1 (enrolled undergraduates, graduates, or entering transfer students) preceding the academic year of the award for the fall semester, by November 1 for the spring semester, and by April 1 for the summer session. Scholarships are awarded for the academic year but not for the summer session.

Undergraduate students requiring financial assistance should contact the Director of Student Aid. Graduate students requiring financial assistance should contact the Office of Graduate Studies and Research. Brochures and applications for financial aid are sent upon request.

Graduate Students

The Office of Graduate Studies and Research maintains a program of fellowships, traineeships and graduate assistantships to support graduate students in programs of full-time study. Awards are made on the basis of academic merit and financial need. A program of Special Opportunity Fellowships and tuition grants is also available for students from tri-ethnic minority backgrounds. Information and application forms may be obtained from the Office of Graduate Studies. Applications must be submitted by January 15 for awards to commence in the following academic year.

Loans for graduate students are administered by the Director of Student Financial Aid. See above for information and application deadlines.

The Housing Office also administers a program of Residence Hall Assistantships. For information and application forms, contact the Housing Director.

Loans

There are various University loans available ranging from small short-term emergency loans carrying no interest to long-term loans with interest.

Employment

Many students also earn a portion of their college expenses through part-time employment on the campus or in the Washington community. Inquiries concerning employment other than the college work-study program should be addressed to the Director of Placement.

Facilities and Services

Residence Facilities

Residence Halls

Space in University Residence Halls is available only to full-time undergraduate students of The American University. The residence hall lease is binding for a full academic year (fall AND spring semesters). The 1971-72 room rate is \$295 a semester for a triple room (freshmen) and \$345 a semester for a double room (upperclassmen). For details on residence hall procedures and policies, as well as the 1972-73 room rates, please write to the Director of Residential Life.

Room Reservations

Requests for informational materials and application forms for space in University Residence Halls should be addressed to: Office of Residential Life, The American University, Washington, D.C. 20016.

A non-refundable \$100 room reservation deposit will be collected each year when availability of space for the student is confirmed. Since this deposit is meant to insure occupancy for the full academic year, it will be applied to the spring semester's housing charge of the year which the housing lease covers.

Resident students must observe all regulations, specified in the contract, which they (and their parents, if students are under 21) sign, as well as University regulations. They will be held responsible for damage to their rooms during their period of occupancy, and will be billed either individually or with roommates for damages.

Refund of Housing Payment

A schedule for refunds upon withdrawal from the University during the semester will be announced and will thereafter be available in Residential Life Office. Refunds may not be made to students moving off campus before completion of their contractual obligation.

Room Furnishings

Each room contains a bed, chest, desk, chair, and closet space for each resident. Electrical equipment brought by the students is limited to small appliances such as clocks, radios, and irons. Individual cooking equipment such as broilers and fry pans cannot be used in the rooms. There are limited kitchen facilities in the residence halls.

Linen Service

An optional linen service is available to residents. Arrangements for the service can be made after student receives his housing assignment.

Banking Facilities

The University operates no student banking facilities. A number of banks are located near the University campus. As a convenience to full-time resident students, the Office of Student Accounts

will normally be able to cash personal checks up to \$50 upon presentation of the Student Identification Card between 9:15 am and 1 pm and 2:30 pm to 4 pm Monday through Friday.

Campus Store

The campus bookstore carries all required textbooks, a large selection of non-required books, all necessary paper supplies and stationery, college sportswear, college jewelry and gifts, phonograph records, magazines and newspapers, film, and toiletry items.

Office of Student Accounts

Following admission to the University, students handle all financial transactions with the University, including the cashing of checks, through the Office of Student Accounts.

Mail Service

Mail service is provided Mon.-Fri., 10 am-5pm, and Sat., 10 am-2 pm. The University maintains a U.S. Post Office contract station on the campus where off-campus students may rent mail boxes for a small fee. Mail boxes are furnished to resident students in each dormitory without charge. Post Office hours: Mon.-Fri., 9:30 am-4 pm.

Dining Services

There is a cafeteria, a la carte dining room, snack bar and student social club in Mary Graydon Center. Five day (Monday through Friday) meal contracts are available for \$245 a semester, beginning with the first day of classes and ending on the last day of classes (excluding vacations). Resident students are urged to buy meal contracts since there are no restaurants near the University.

A student who loses his meal ticket should report it at once to the Dining Services Office. A charge of \$3 is made for each duplicate issued. Application to cancel meal tickets before bills are paid is made through the Office of Student Accounts. After the semester contract is completed through issuance of a picture meal card, the contract may be broken only under unusual circumstances. The Director of Dining Services is glad to assist students in working out dietary and schedule problems.

Health Service

The Student Health Center, under the supervision of an affiliate of the staff of Sibley Memorial Hospital, has a medical staff of several physicians who maintain regular office hours and consultants in various specialties, such as dermatology, to whom students are referred according to need. A nursing staff provides dispensary services during day and evening office hours on week days and Saturday mornings during the regular academic year to full-time undergraduate students and to other full-time students who pay the health fee of \$20 a semester.

Since there are no facilities for bed patients, medical treatment is available at Sibley Memorial Hospital (or at another hospital of the student's choice) for serious illness or accident during the hours the dispensary is closed.

New full-time undergraduate students must submit before registration a report (on a form supplied with their admissions notice from the Admissions Office) on the results of a physical examination by a physician of their choice.

The Student Health Center is available to all full-time undergraduate students. This service is for diagnostic purposes and the care of minor illnesses only; the infirmary has no facilities for bed patients. Students whose health problems are more complex will be referred to nearby Sibley Memorial Hospital or another hospital of their choice for treatment.

Dispensary Hours:

7:30 am to 10 pm
Monday thru Friday

9 am to 3 pm
Saturday

Closed on Sunday

Doctor's Clinic Hours:

8 am to 11:30 am
Monday thru Friday

11 am to 1:30 pm
Saturday

Holiday Hours:

Special hours are posted in advance

Student Insurance Plan—All full-time students may elect to participate in the Student Health Insurance Plan. Detailed information concerning this plan is available in the Student Health Center and the Student Life Office, Mary Graydon Center. Annual renewal must be initiated by each student before the fall deadline (one week after classes begin). No bills are sent.

Student Cocurricular Services

Office for Student Life

The Office for Student Life offers a program of services to students and faculty which complements and assists the University's formal academic program. These services are implemented through the Placement Office, Counseling Center, Student Activities Office, Chaplain's Office, Health Center, International Student and Faculty Exchange Office, Housing Office, and Financial Aid Office. The Office also acts as liaison with the dining services.

Placement Center

The Placement Center assists students and graduates of the University interested in obtaining part-time, temporary, and summer employment, and in seeking career employment to start after graduation. For the student needing part-time or temporary employment, the Center offers information and assistance relative to a fairly wide variety of job openings on the campus and the Washington metropolitan area. The Center also has listings of many room and board situations for students and listings of job openings for part-time students needing a full-time job.

The Placement Center provides counseling, guidance, and other assistance in important aspects of career planning and career job seeking. The Center maintains for student use reference materials pertaining to career employment opportunities in a broad range of occupational fields and employer organizations. It provides a referral service whereby credentials for applicants for career employment, particularly teaching candidates, are referred to interested employers on request. Through an annual campus interview program, the Center offers an opportunity to graduating students for interviews with representatives of numerous business and industrial firms, government agencies, and school systems seeking career employees. The Center also provides information to registrants on specific career job openings.

Counseling Center

The aim of the University Counseling Center is to assist students to better understand themselves, to deal more effectively with important decisions, and to resolve problems. An extensive program of professional psychological services is provided.

Counseling is on an individual or group basis depending upon what is more suitable. Help is available in vocational or educational planning, in resolving problems of a personal or social nature, and for pre-marital and marital concerns. In addition, there are encounter groups to enhance personal development. Other services include various testing programs, an occupational information library, and a reading and study skills laboratory to improve educational skills.

There is no additional charge to full-time students for Counseling Center services. All contacts are confidential.

Financial Aid

See page 16.

Residence Facilities and Dining Services

See page 19.

International Student and Faculty Exchange

The Office of International Student and Faculty Exchange provides specialized services geared to the needs of foreign nationals and to U.S. students contemplating study outside the United States. These services include the general counseling and guidance of foreign students, coordination of U.S. and foreign faculty exchange, and guidance for U.S. student study abroad. Graduate level internships and individual reading or research courses are also provided for selected graduate and undergraduate students interested in international educational and cultural exchange vocations.

See *INTERNATIONAL STUDENTS* page 13.

Chaplains

Chaplains at The American University see their ministry to the campus in a broad context. Representing a wide variety of denominations and faith groups, they attempt not only to provide traditional chaplains' services of worship and personal counseling, but also to work in concert with other campus groups in making the University more responsive to the human needs of its members.

The Abraham S. Kay Spiritual Life Center houses the offices of the chaplains, together with the Chapel, a lounge, a library, and meeting rooms. Protestant, Catholic, Jewish, Christian Science, and occasionally other religious services are regularly scheduled here, as are other campus functions of various kinds. Worship tends to be both contemporary in style and involved with the life of the campus and the world.

There is an open and welcome atmosphere at the Center, where students feel free to come and talk with one another or with a chaplain about problems or plans or ideas. There is opportunity to work with others of different religious backgrounds in a democratic way. To be involved here is to add significantly to the meaning of one's experience at the University.

Worship Services

Each week during the fall and spring semesters (except academic holidays) worship services are held at the Kay Spiritual Life Center.

Sunday:	Roman Catholic Mass	10:00 am
		12:45 pm
		5:00 pm
	Protestant Worship	11:15 am
Thursday:	Christian Science	6:30 pm
	Contemporary Protestant Worship	10:15 pm
Friday:	Jewish Sabbath Services	7:30 pm

In addition, Roman Catholic Mass is celebrated week-days and confessions are heard (hours announced).

Student Health Center

See page 20.

Student Activities

The Student Activities Center assists both student groups and individual students in the facilitation of learning and personal growth beyond the classroom. The staff members specialize in activities counseling, advising and coordination of organizations, providing leadership training, and personal development programs. Students in conjunction with the Activities staff and the administration work together in developing programs related to student life.

As a result of the University commitment to the awareness of student needs, a broad spectrum of experience relevant to the current life goals and needs of students is provided by a trained, professional staff.

Student Confederation

The Student Confederation is designed to be a University-wide undergraduate student government which represents the academic, social, and community interests of the student body. Membership is based upon full-time undergraduate students who pay the required activities fee.

Other student government groups are: Residence Hall Association, Inter-Fraternity Council, Panhellenic Council, Inter-Club Council, Judicial System, All-Kay Community, and the Social Action Council.

Judicial System

The Judicial System, structured on the fundamentals of due process, is designed for the hearing and resolving of complaints against students and student groups. Underlying the entire program is a deep regard for discipline as a constructive element of education.

All-Kay Community

The All-Kay Community coordinates the activities of the various religious groups and plans general religious activities.

Social Action Council

The Social Action Council is dedicated to education, participation, and change. Focusing upon the problems of the city, SAC sponsors campus-wide training programs and speakers on urban affairs. SAC is involved in such projects as the Washington Area Study Project, D.C. General Hospital Program, Tutoring Program, service fraternities, a mental health program, and the Organization of African and Afro-American Students at The American University (OASATAU).

Athletic Program

The University participates in an intercollegiate athletic program that includes soccer, cross country, wrestling, basketball, swimming, tennis, golf, baseball, and track. There is intramural competition in touch football, basketball, softball, track, swimming, bowling, and volleyball. In addition, individual competition is available in tennis, checkers, golf, horseshoes, chess, badminton, table tennis, free throw, shooting, and archery. The University inaugurated its first season of club football in 1970 which included both local and East Coast club football teams.

Debate

The intercollegiate forensics program is coordinated by the Hurst R. Anderson Forensic Society. Members of the HRAFS participate in an extensive schedule of intercollegiate events including debate tournaments and contests in individual events.

Drama

The American University Players present several classic and contemporary productions throughout the year and also schedule play readings, one-act plays, and dramatic television productions. Through work in various phases of campus theatre, points may be acquired to meet the requirements of active membership in the Green Room Players Club.

Music

Musical groups on campus include The American University Chorale, The American University Orchestra, The American University Singers, and The Wolf Trap American University Summer Academy Orchestra and Chorus. Each of these groups presents concerts during the year. The Singers schedule concert tours in addition to their campus programs. Qualified students may register in any of these musical organizations for credit.

Political Organizations

There are a variety of political organizations on campus which encourage participation in local and national political campaigns and sponsor lectures by members of Congress, journalists, and representatives of different political parties. Recent organizations included Young Democrats, Young Republicans, Students for a Democratic Society, Young Americans For Freedom, Student Mobilization Committee, and Young Socialist Alliance.

Professional and Honorary Societies

At The American University students can strive for election to both professional and service honoraries. Professional honoraries are established in the fields of biology, debate, dramatics, education, German language, graduate work, history, journalism, leadership, marketing, mathematics, music, political science, speech arts, and transportation. The service honoraries are: Omicron Delta Kappa (men), Diadem (women), Mortar Board (women), and Tassels (women). There is also a chapter of the National University Honor Society, Pi Kappa Phi, on campus.

Publications and Broadcasting

Students publish a weekly newspaper, the *Eagle*; a literary magazine, *The American*; and a yearbook, the *Talon*. The student radio station WAMU-AM broadcasts daily.

Service Organizations

There are three service organizations whose University chapters are nationally affiliated. Alpha Phi Omega and Omicron Kappa for college men provide wide fellowship programs with many leadership and service opportunities. The women's service sorority, Gamma Sigma Sigma, performs a variety of services for the University and community, including assistance in the Settlement Houses in the Washington area.

Social Organizations

The University currently has chapters of 10 nationally affiliated sororities and fraternities. The six sororities on campus are: Alpha Chi Omega, Alpha Epsilon Phi, Delta Gamma, Kappa Delta,

Phi Mu, and Phi Sigma Sigma. The fraternities are: Alpha Epsilon Pi, Alpha Tau Omega, Alpha Sigma Phi, and Phi Sigma Kappa.

Academic Advising and Counseling

It is the policy of The American University that students be provided with academic advising and counseling. Under the direction of the Associate Dean of the College of Arts and Sciences, freshman students are assigned in small numbers to faculty members for guidance in planning their academic programs. They remain with these advisors until they have decided upon a major area of study at which time they are assigned by the appropriate College or School dean to advisors in their specialized fields. (Students who wish help in the selection of a career rather than the planning of course work are advised to consult with the Counseling Center in addition to their academic advisor.)

All full-time faculty members have posted office hours each week during the semester. If a student has difficulty meeting with his faculty advisor during his regular office hours, the student should then make an appointment with his advisor at a time convenient to both. Students are also welcome to meet with the undergraduate dean of their College or School when they wish to do so.

Prior to registration for his semester course work, a student must come to his advisor and plan his program for the next semester. He should review the *Schedule of Classes* showing the courses which will be offered and plan a tentative schedule of courses for the upcoming semester. He should then discuss his tentative plan with his advisor in order to secure the required approval on his registration card. Any subsequent addition in the student's schedule of classes must also be approved by his advisor.

General Academic Regulations

As a part of the process of achieving a high quality of educational experience for the student, the University is undergoing revision of its academic requirements. As a result, the information contained in this and other sections of this catalog may be revised during the course of the academic year. Students therefore are advised to contact their dean or department chairman to ascertain what new requirements may pertain to their individual academic degree program in fall 1972.

Undergraduate Degree Requirements

University Requirements

Effective fall 1970, the University abolished its program of distribution requirements in the social sciences, natural sciences, and humanities areas. The remaining undergraduate requirement is a two-course sequence as described below:

Students throughout the University are extended the option of enrolling in English Composition and Reading I and II (ECR), Selected Human Problems I and II, or special Literature Department seminars. These courses are not equivalent courses, i.e., enrollment in one course would not make enrollment in the other redundant. They are, rather, alternative courses in the sense that satisfactory performance will certify a student's writing ability. *Any two of these courses taken in any order will serve to satisfy the University English requirement.* The reasoning behind this view of the relationship is that the ECR courses are explicitly designed to guide the development of the student's writing ability; SHP and the seminars, on the other hand, are interdisciplinary courses with their own well-defined syllabuses which include no explicit training in writing techniques. They do, however, require an amount of written work comparable to the amount required in the ECR. Therefore, the evaluation of the student's performance in these courses contains an implicit evaluation of his writing ability. The increased flexibility provided by the above options allows the student to adjust his University English requirement to meet his individual needs.

Normal Academic Load / Full-Time Status

An *undergraduate student* admitted to and enrolled in a degree program normally carries each semester 4 full course units to satisfy the required minimum of 32 course units for the baccalaureate degree. In any given semester, such a student may carry a minimum of 3 course units and be classified and/or certified (for V.A., Selective Service, Financial Aid, etc.) as full-time for that semester. The additional course must be made up through summer enrollment or by an overload (if approved) in the following (or previous) semester in order to remain in normal progress annually toward the degree, as often required by the regulations of government agencies. The student is urged to become familiar with such regulations. Four and 3/4 course units is considered the maximum load without special approval (see *OVERLOAD*).

A *Graduate Student* will be classified as full-time when enrolled for 9 or more semester hour credits (or equivalent in course units).

Overload

An *undergraduate student* desiring 5 or more course units is required to have the approval of his academic advisor and the appropriate dean. Generally, such approval will be granted when the student ranks within the upper 25% of the undergraduate student body based on his cumulative grade point average in work undertaken at The American University. In the 1972-73 academic year, a cumulative grade point average of 3.25 would generally rank a student in the top 25%. It is also understood that the student should have no incomplete grades to be made up.

Course Hours and Determination of Credits

Effective September 1970, undergraduate graduation requirements were changed from a minimum of 120 semester hours to a minimum of 32 courses. Under the course system, semester hour credit is no longer assigned to undergraduate courses. For purposes of transfer evaluation, however, it is recommended that a COURSE receive four semester hours credit. Students registered at The American University prior to fall 1970 or those contemplating transfer to The American University should use the following schedule in equating previously earned semester hours to the COURSE system.

15 credit hours	=	4 courses	75 credit hours	=	20 courses
30 credit hours	=	8 courses	90 credit hours	=	24 courses
45 credit hours	=	12 courses	105 credit hours	=	28 courses
60 credit hours	=	16 courses	120 credit hours	=	32 courses

Credit hours less than 15 or in excess of a multiple of 15 are converted to courses according to the following scale:

1 hr 1/4	2 hrs 1/2	3 hrs 3/4	4 hrs 1	5 hrs 1-1/4	6 hrs 1-1/2	7 hrs 2	8 hrs 2-1/4
9 hrs 2-1/2	10 hrs 2-3/4	11 hrs 3	12 hrs 3-1/4	13 hrs 3-1/2	14 hrs 3-3/4	15 hrs 4	

Graduate Degree Requirements

These degree requirements are currently undergoing revision by the University Senate for later application. Candidates for graduate degrees are advised to contact their own particular dean or department chairman for subsequent developments which may be incorporated into their programs.

Candidates currently enrolled for graduate degrees will be subject to those academic regulations in force at the time of their admission.

Admission—See page 5.

Evaluation of Graduate Students

The minimum cumulative grade point average required to maintain good standing in graduate study at The American University at both master's and doctoral levels is 3.00 (based on a 4.00 system) in all graduate courses attempted in residence at The American University. Schools or departments may require higher averages.

Advancement to Candidacy

Each dean or department chairman may at his option require a formal advancement to candidacy and determine the nature of the advancement procedure he will use. Advancement to candidacy may be described as a point in the student's academic progress during which his teaching unit formally evaluates his abilities for continuation in his degree program.

Course Hour and Residence Requirements

Master's Degree: At least 30 semester hours of graduate work, including a research requirement of six semester hours, is necessary for the completion of the Master of Arts and Master of

Science degrees. 24 of these hours, including the research requirement, must be completed in residence at The American University.

Doctoral Degree: The requirement is the equivalent of 72 semester hours of graduate work.

(1) For students who complete their entire graduate program at The American University, the requirement is the equivalent of 72 semester hours of graduate work which may consist of 48 to 60 hours of course work and 12 to 24 hours of directed study on the dissertation.

(2) For students admitted with a master's degree earned elsewhere, the requirement is at least 30 hours of graduate work in residence and 12 hours of directed study on the dissertation, exclusive of any work taken at The American University prior to application to the doctoral program.

(3) Students admitted without a master's degree must first attain doctoral standing and then must complete a minimum of 30 hours of graduate course work in residence and 12 hours of dissertation seminar, as required by their department or school.

(4) Once a student has been admitted to graduate work toward a degree he must obtain prior permission from his dean or department chairman in order to take graduate work at another institution which will count toward his degree objective at this University. Otherwise, such work will not be counted toward a degree at this University. Such work also may conflict with residence requirements.

Academic Load

A graduate student is considered full-time when carrying nine or more hours. In certain instances an academic teaching unit may certify a graduate student as full-time even though he carries fewer than nine hours. Students are referred to the appropriate dean or department chairman for details.

In summer sessions, because of the combination of five-, eight-, and ten-week sessions, there are various possibilities of full-time status. A student who carries any of the following schedules is considered full-time:

(1) six hours in either the first or second five-week session;

(2) three hours in either five-week session and three hours in the eight-week session—student is full-time for the period of overlap of the two sessions;

(3) three hours in either of the five-week sessions and three hours in the ten-week session—student is full-time for the period of overlap of the two sessions;

(4) three hours in the eight-week and three hours in the ten-week session—student is full-time for the period of overlap of the two sessions.

Tools of Research

Each dean or department chairman specifies the tool or tools of research required, if any. (See the individual school or department pages of this *catalog* for the tools that are required.) Tools relate to research in the discipline in which the student is studying. The student's satisfaction of tool requirements is certified by the teaching unit, which may sub-contract the job or do it itself. Normally, such tool of research requirements are satisfied before the student attempts the thesis, dissertation, or related studies.

Examination Requirements

Comprehensive and other examinations (both oral and written) are designed to test mastery of both broad and specialized fields. They presuppose more reading and research in the fields than would normally be expected in a series of lecture-discussion courses. They are expected to evoke not only knowledge of the subject and appropriate professional literature but also to express intelligently comprehensive concepts and fundamental issues.

Master's Degrees: At least one comprehensive examination, the nature and scope of which is determined by the student's teaching unit, is required.

Doctoral Degrees: A qualifying examination must be taken before completion of 24 semester hours of course work in a doctoral program at The American University. If a student does not pass the qualifying examination he may, at the discretion of the teaching unit, subject to appeal to the Committee on Graduate Studies, be permitted a retake. Such retake must be completed within nine months.

At least four comprehensive examinations will be required, at least one of which will be an oral examination. At least two comprehensive examinations must be written and must be taken within one year following the completion of the residence requirements. The qualifying examinations and/or master's comprehensive examination, if taken at The American University, may be credited at the discretion of the teaching unit toward meeting the comprehensive requirements for a doctoral degree.

An oral examination on the dissertation is also required.

Examination Timetable

For both master's and doctoral degree students, the dean or department chairman (or designated representative) determines the time and eligibility for taking the examinations.

Application to take comprehensive examinations is made to the teaching unit on a standard form available from that office. After approval is obtained the student pays the appropriate fee at the Office of Student Accounts. In most cases, students should plan to apply during the first week of classes of the semester in which they plan to take the examinations.

Examination Fields

Although proposed fields for comprehensive examinations may have been planned early in the graduate student's academic career, it is possible to change the fields up until the time the student actually submits the application for admission to the comprehensive examinations. Each school or department offers its current list of standard comprehensive examination fields, including certain "core" fields and areas in which candidates in particular degree programs must present themselves for examination. (A list of these fields is presented in the respective sections of this *catalog*.) A student may choose from the list (including the required core) the ones which are appropriate to his own interests and objectives.

In some disciplines, it is possible to choose a field outside the major area of interest. In choosing such a field, however, the candidate is required to choose one which is available at the time of his application to the comprehensive examinations.

Examination Grading

Normally, each comprehensive examination written by a candidate is read by two readers and is rated distinction, satisfactory, or unsatisfactory by each reader. In order to pass the examinations the candidate must obtain at least satisfactory from both readers in each of the fields in which he was examined. In the event of a disagreement in the ratings between readers as to whether or not the candidate should pass, a third reader is appointed to break the deadlock.

Examination Grading Variations

Each individual dean or department chairman may elect to determine a different system of grading comprehensive examinations for his own candidates. Consult the specific school or department of your major interest to ascertain what system is used. The system described above is the traditional one in use throughout most of the University.

Re-examination

In the event that a candidate for a graduate degree fails part or all of his examinations (whether qualifying or comprehensive) he may be permitted a second attempt within two years. The second attempt must be made within nine months for a qualifying examination and two years for a comprehensive examination. The nature and extent of the examination or examinations to be retaken is determined by his teaching unit. However, no more than one retake is allowed.

Thesis and Non-Thesis Options

For master's candidates the thesis is expected to demonstrate the student's capacity to carry on original and independent research. Some schools and departments of the University offer the opportunity to substitute a case study, an in-service project, an original creative work, or specific advanced research courses, in lieu of a thesis for the master's degree. In every such case, the thesis seminar or other accepted alternative must be considered part of the residence requirement for the master's degree and must meet the standards set forth by the individual schools and departments as well as those of the University.

No academic credit is given for the master's thesis unless the student registers for the Thesis Seminar. However, he should not enroll for this seminar before he is ready to start work on his formal thesis proposal or the thesis itself.

Traditionally, an advisory committee is appointed for each candidate working on a thesis. The committee may be composed of one, two, or three members. An oral examination by this committee is often required. Suggestions for revision may be made as conditions to be met before members will sign the title page of the thesis. If the chairman of the thesis committee or the department chairman certifies failure to complete a satisfactory thesis, the student may be dismissed from the University.

A student who writes a thesis must adhere to the required form and content for the proposal and to the other procedures described in detail in the published guides which may be received from the Office of the Dean of his school or college.

Students electing the non-thesis option should obtain specific departmental requirements from their teaching units. The University minimum requirement is two research-oriented courses at the .600 or .700 level. Only grades of A or B in these courses will satisfy the non-thesis option.

Dissertation

Capping the requirements for achieving the doctorate is the dissertation, together with the required oral examination of the dissertation by the student's teaching unit. Normally, the candidate must have completed all other academic requirements for the degree before the oral examination can be held.

When a candidate is declared ready to proceed to the dissertation he must submit a dissertation topic proposal reporting the results of his preliminary research. This proposal is expected to contain, among other things, a concise statement of the major problem of research and of related supporting problems, the data to be used, a selected bibliography, a statement of the probable value or importance of the study, a brief description of the methods to be used, and a preliminary outline of the dissertation in some detail.

After approval of the proposal by the candidate's advisor it is presented to the dean of his school or college for final approval. Acceptance of the proposal indicates that the topic is a suitable one and that the dissertation will be accepted if developed adequately by the candidate. Acceptance of a dissertation topic proposal under no circumstances commits any department or school or the University to acceptance of the dissertation itself, however. The University will take responsibility for directing research only in fields and problem areas which its faculty members feel competent to handle.

A dissertation advisory committee of three to five persons is normally appointed by the candidate's academic dean for each candidate undertaking a dissertation. After the draft manuscript has received the tentative approval of all members of the committee, the committee chairman arranges for the oral examination. This covers the dissertation itself and the general field in which it lies. All members must agree that the candidate has passed the oral examination. Conditions to be met before final acceptance of the dissertation may be specified without necessarily holding a second oral examination.

If the chairman of the dissertation committee or the department chairman certifies failure to complete a satisfactory dissertation, the student is automatically dismissed from the University.

Dissertation Progress Report

Upon completion of the student's comprehensive examination, the student and the student's committee chairman or other available member of the committee when selected, or his advisor, shall be required to file progress reports with the Dean of Graduate Studies and Research every semester. Failure on the part of the student to submit such a progress report for two consecutive semesters constitutes termination of the student's matriculation.

Publication

It is the policy of the University to encourage publication of dissertations, case studies, and theses, with acknowledgment to the University. In the event substantial alterations are made before publication, this fact must be noted in the prefacing statement which gives acknowledgment.

Regulations concerning the form and preparation of the final manuscript, abstract, copyright, and so forth may be obtained from the dean or department chairman offering the doctorate. Certain deadline dates, e.g., for submission of proposals, for submission of drafts, and for holding oral examinations, are found in each *Schedule of Classes*, and must be met if a candidate expects to receive his degree at the following May commencement.

The ABD Status

Candidates for the doctorate who have completed all the requirements for that degree except the dissertation (the so-called "All-But-Dissertation" status) and who entered a doctoral program without a master's degree may be awarded the appropriate master's degree from the University in the field in which their doctoral work was accomplished.

Maintaining Matriculation, Required Graduate Study Registration

The University requires students who have completed at least one course in a graduate degree program to register each year for the entire academic year until they complete their entire program. Accordingly, those who do not enroll in any courses or research seminars during the school year must register in the fall semester of each year under the designation .099 Maintaining

Matriculation (no credit) and pay the required fee (non-refundable). A subsequent spring or summer registration does not invalidate the necessity for registering in the fall semester. A student who registers for courses or comprehensive examinations in the fall semester is considered a registered graduate student for the entire academic year and may have his I.D. card validated in the Office of the Registrar for the spring semester and summer session without additional course registration for those sessions.

A student in this category is entitled to use the library of the University as well as the other Consortium libraries and to consult with members of the faculty. A graduate student who does not so register, indicating his continued interest in completing his degree objective, may be subject to delay in his work or may be denied the right to continue his studies.

In the fall semester a student may register for his comprehensive examinations, if appropriate to his academic progress, in lieu of maintaining matriculation, with the option of taking them at any approved designated time during the academic year. Forms are available for this purpose in the office of the student's dean or department chairman. The appropriate fee is non-refundable. The signed receipt from the comprehensive examinations application will serve to validate his I.D. card in the Office of the Registrar in order that he may use the library facilities. (See further details regarding the comprehensive examinations application under that section in preceding pages.)

Statute of Limitations

Master's: All work for the master's degree must be completed within three years from the date of the first registration in a graduate degree program.

Doctorate: All work for the doctorate must be completed within five years from the date of the first registration as a doctoral student. However, the student is permitted seven years if he enters a doctoral program directly from a bachelor's degree.

A student who has not completed requirements in the time limits specified above must petition for re-admission if he wishes to continue.

Other Academic Regulations

Student Responsibility

The University faculty has formally adopted the following statement on student responsibility:

The American University expects that each student, as a mature member of the academic community, will adhere to the highest standards of personal integrity and good taste in his conduct and in his relationships with others.

University Liability

Faculty, students, staff, and guests are responsible for their personal property, clothing, and possessions. The University does not carry any insurance to cover losses of such articles nor does it assume any responsibility whatever therefor.

Class Attendance

The University considers class attendance a matter best left to the discretion of the individual classroom instructor. It is expected, however, that those faculty members who require a stated attendance policy will announce that policy at the first few class meetings each semester.

Veterans and others receiving government benefits are reminded that the paying agency may have specific attendance policies. Details of veterans' benefits are available from the veterans' counselor.

Grading System

Grades used at The American University are:

A = excellent (4 points)
B = good (3 points)
C = satisfactory (2 points)
D = poor (1 point)
P = pass (0 points)

F = fail (0 point)
I = incomplete
W = withdrawal
L = auditor (no credit)
N = no grade reported by instructor

"D" Grades

No credit is received by a graduate student for a "D" grade in a graduate level course.

Pass-Fail Courses

For undergraduate students the grade "P" indicates a quality of performance no less than "C" on a conventional grading scale.

For graduate students the "P" (normally given only for individual reading or research courses) indicates satisfactory completion of the work at the graduate level.

For both undergraduate and graduate students a grade of "P" does count toward graduation.

Removal of Incomplete

The grade of "I" (Incomplete) is given only to students who have made arrangements in advance with the instructor for the late completion of a course. A special form for this purpose is available from the Office of the Registrar and all deans' offices. A grade of "I" must be resolved to an "A", "B", "C", "D", or "F" by the instructor upon completion or the failure to complete the requirements of the course within the time specified on the INCOMPLETE REMOVAL FORM. Completion of such work may not extend beyond the end of the semester following that in which the "I" was given. Unless resolved to one of the grades indicated above, the "I" will stand as the permanent grade. A "W" may not be given to remove a grade of "I".

Quality Points and Quality Point Index

A grade point average for an undergraduate student at The American University is not the exact index of relative standing that it is in many institutions. Because of the extensive elective possibility of the pass-fail grading system, the grade average may include only a portion of the work attempted by a given student.

The cumulative grade average includes only those courses taken for conventional grades (A, B, C, D, F). Courses taken pass-fail are *not* included in the grade average, nor are grades of "Incomplete."

Only grades earned at The American University are computed in the cumulative grade index. Credits accepted on transfer from other institutions are included in the total number of undergraduate courses or graduate credit hours applicable to degree requirements, but are *not* included in the cumulative grade index.

Freshman Forgiveness Rule

Since the fall semester, 1963, a freshman student who, during the first two semesters of full-time study, receives a grade of "F" in a course may repeat the course within the calendar year thereafter or in the next two regular semesters in which the student is registered at The American University. No grades shall be removed from the record but when such a course is repeated only the grade earned the second time the course is taken shall be used in computation of the cumulative average for purposes of making decisions concerning probation, dismissal, and required average for graduation.

A part-time freshman student who during his first eight courses of study receives grades of "F" in courses may repeat these courses within the calendar year after the semester in which the grades of "F" were received with resulting cumulative index benefits stated above.

Students who are readmitted to the University before they have begun their third semester of college work may within one calendar year after their re-admission retake courses in which they received grades of "F" during the first two semesters at The American University with the resulting cumulative index benefits stated above.

The foregoing regulations concerning repeated courses are not applicable to students who enter the University as transfer students, including those who enter as transfer students with freshman status (less than 4 courses) or to pass-fail courses.

Pass-Fail Grading

Prior to the fall semester 1969 an undergraduate degree student was permitted to take on a pass-fail basis, four courses over his entire undergraduate program (not more than one course in a single fall or spring session) outside his major courses, his required related field courses, and his University requirements courses. Grades for these courses were recorded as satisfactory or unsatisfactory and did not affect the student's grade point index.

Effective in the fall semester 1969 undergraduate students may take up to 50% of their courses on a pass-fail basis. (With approval of a student's major department, a greater percentage of courses may be taken pass-fail.)

Repetition of Courses

Whenever a course is repeated, each attempt, including final grade, is entered separately on the permanent academic record. Unless specifically indicated to the contrary, however, only one successful attempt of a course is counted toward fulfillment of graduation requirements.

Transfer of Credit

Credits accepted on transfer from another institution are included as "Advanced Standing" in the total number of credit hours applicable to degree requirements, but grades earned in such courses are not recorded on the permanent academic record at The American University, and are not used in computing the average needed for graduation. Only grades earned at The American University can be used for this determination.

Waiver

On the basis of tests and records the University may permit undergraduate degree students to waive all or part of the undergraduate University requirements in composition and reading.

Waiver examinations in foreign languages are given at the University during the course of the school year.

When students transfer courses which are essentially "continuation courses" the grade earned in the final semester of such courses will determine whether the entire sequence is creditable for University requirements purposes only. (This regulation shall not be interpreted as granting credit hours for courses transferred with a grade below "B" or "C" according to the institution from which the courses are transferred.)

Class Standing

The class to which an undergraduate student belongs is determined at the end of each academic year on the basis of the number of courses he has successfully completed, including those accepted as transfer credit, as follows:

- 0-7 Freshman
- 8-15 Sophomore
- 16-23 Junior
- 24-32 Senior

Independent Reading Courses and Study Projects and Non-Recurring Selected Topics Courses

An *Independent Reading Course* is defined as a course in which a student by prearrangement with an instructor reads a body of material with a minimum of formal instruction.

An *Independent Study Project* is defined as a course in which a student does research on a topic agreed upon by the student and the instructor, or engages in any mode of education deemed worthy of a student's efforts by the instructor responsible for the course. This may include teaching undergraduates on a guided basis, participation in educational programs off campus, travel under stipulated conditions, and so forth. In essence, this is a vehicle enabling the student to range as far as his interests and preparation carry him, subject to the approval of a faculty member, and his school or department.

A *Selected Topics (Non-Recurring) Course* is defined as any course or project involving a group of students on a non-recurring and/or experimental basis. This will include all courses which do not form a regular part of the curriculum of a department or school. In essence, this is a vehicle which will enable the faculty to offer courses on a single-time basis. It is also a vehicle for experimentation with the curriculum. It is distinguished from independent study projects in that it is open to groups of students under the same conditions by which a student registers for any course.

It is expected that registration in these courses will be at the regular registration period for a semester or summer session. It is possible, however, to register in an independent reading course or study project until the beginning of the tenth week of a fall or spring semester or third week of a summer session. (A student desiring to begin such a project after those deadlines may do so informally, but he will register for it at the beginning of the following semester, and it should be noted that this must be included in his course load and tuition computation for that semester.) These courses may be taken by undergraduates for one-quarter to double course credit, by graduate students for one to six semester hours credit, the exact amount to be determined at the time of registration, and must be completed normally by the end of the semester of registration, but in no case later than one calendar year from the date of registration for the course.

A student registering in an independent reading course or an independent study project must complete a special form for that purpose. This form is available in the various teaching unit offices, or at the Office of the Registrar. Approval of the department chairman is required on this form. In the event that the project duplicates a concurrently scheduled course, the approval of the dean of the school is also required.

Students registered in independent reading courses or study projects or non-recurring selected topics courses may be assigned conventional grades, or if they are undergraduate students, grades of pass or fail, according to agreement made at the time of registration. Once assigned, a grade of pass or fail cannot be changed to a conventional grade or vice versa.

With all three categories of courses, it is expected that the student will meet periodically with the instructor to review his progress. If the student is not in Washington, it is assumed that he will be in correspondence with the instructor concerning his progress. Normally, the instructor will be expected to be residing in Washington while he is supervising one of these projects.

Students permitted to enroll in the independent study courses listed below should enter on their registration cards the indicator number (1-75) of the department which will supervise their work, followed by the number of the particular course to which they are being admitted. Departments making use of a non-recurring selected topics course should list such courses using their departmental indicator number (1-75) followed by .396, .596, or .696 and the title of the course.

Undergraduate level

- .390 Independent Reading Course ($\frac{1}{4}$ course to double course)
- .490 Independent Study Project ($\frac{1}{4}$ course to double course)
- .396 Selected Topics (non-recurring) ($\frac{1}{4}$ course to double course)
- .491 Internship ($\frac{1}{4}$ course to double course)
- .398-.399 Departmental Honors Junior Year (course)
- .498-.499 Departmental Honors Senior Year (course)

Graduate level

- .590 Independent Reading Course (1-6 semester hours)
- .590 Independent Study Project (1-6 semester hours)
- .596 Selected Topics (non-recurring) (1-6 semester hours)
- .696 Selected Topics (non-recurring) (1-6 semester hours)
- .691 Internship (1-6 semester hours)

Declaration of Undergraduate Major

By the end of the sophomore year, if not before, each undergraduate student must choose an academic major. Formal declaration of the major is required on a form available from the deans', departmental, or Registrar's Office. Admission to the University does not automatically constitute admission to a major program (except in the School of Nursing). Acceptance is official only when specific approval has been received from the departmental/program chairman or his designate and is recorded by the registrar.

Changes in Major and in College or School

An undergraduate student who wishes to change from one college or school to another or one major to another must receive the permission of the dean and/or department chairman in charge of the program to which he wishes to transfer. This must be done on forms available from the deans' offices or departmental offices and filed in the registrar's office. A change in college, school, or major affiliation, when approved, does not become effective until the beginning of the next semester. It does not become effective if the student becomes subject to suspension or dismissal for failure to maintain University minimum standards.

Foreign Language Course Regulation

It is necessary to complete successfully the second semester of a beginning or intermediate foreign language course to receive academic credit for the first semester of the same course. This includes beginning and intermediate intensive language courses. The grade in the first semester of the course will be included in the academic average whether the second semester is successfully completed or not.

Undergraduate Students Enrolled for Graduate Credit

A senior student with the permission of his department chairman or dean may enroll in specifically approved graduate courses not required for his undergraduate program. Such courses

must be designated as graduate credit at the time the student registers for them. Retroactive application of these credits for such purpose is not permitted. Credits for these courses may be applied toward meeting the course requirements for a graduate degree after the student has been awarded his undergraduate degree and provided he is then admitted to graduate standing.

Transfer Credit

Students who take courses in other colleges and universities for transfer credit to The American University must receive prior approval in writing from their advisors and the dean of their college. This work usually is undertaken during the summer or as a part of an overseas study program (junior year abroad). Credit may be denied if the student does not receive prior permission.

Graduation Honors

Undergraduate students are eligible for graduation with honors provided they have completed at least one-half of the course work required for their degree in residence at The American University and have achieved the requisite grade average. The average is based on courses taken at the University only. Pass-fail courses will not be computed in the average. Undergraduate honors and the average required are as follows: *summa cum laude*—3.90 or higher; *magna cum laude*—3.75 to 3.89; *cum laude*—3.50 to 3.749.

Academic Probation and Dismissal

An undergraduate student who fails to maintain a cumulative average of "C" (2.00) is subject to dismissal. A first-year undergraduate student whose cumulative average falls below "C" may, under certain circumstances, be continued on probation during a second year. In the determination of the number of hours completed, credits accepted by transfer from another institution are included, but in the determination of the cumulative average, only grades earned at The American University are counted.

Residence Requirements

The last eight courses for any undergraduate degree must be completed in residence. An undergraduate student who transfers from another institution with advanced standing in the field of the major is required to do a minimum of four courses at the upper-level in the department of the college or school for which he has applied for graduation. More may be required by the department chairman or dean.

Completion of Degree Requirements and Commencement

The University confers degrees and issues diplomas at the end of the fall semester, the spring semester, and the second summer session. All students who expect to complete their degree requirements by the end of one of these periods must file an "Application for Degree" available from the Office of the Registrar. The application deadline is subject to the dates established by the registrar and published in the *Schedule of Classes*.

A formal commencement ceremony is held only at the end of the spring semester. Diplomas are mailed to students completing degrees at the end of fall or summer sessions unless the student requests in writing to the registrar that the diploma be held for the annual commencement ceremony which the student expects to attend.

A student who, having applied for a degree for a given semester, fails to meet the requirements of the degree for the semester, *must re-apply for the degree* expected at a later date.

Study Abroad

Students with certain educational objectives may include in their undergraduate program study at an institution abroad. American University students may wish to consider the following options in planning their academic work.

Study Abroad Programs

This term is used to refer to "Junior Year Abroad" or any program at a foreign institution which is a formal part of a regionally accredited U.S. college or university, and is recorded on the transcript of that institution. For determination of regional accreditation, the publication *Credit Given* is the accepted reference.

After consultation with and approval from the student's dean, application is made directly to

the institution for admission to its foreign study program. Transfer credit will be granted on the basis of the transcript from the sponsoring U.S. college or university.

Attendance at an Institution Not Affiliated with an American College or University

Student will seek approval of the institution to be visited from his dean and the Office of Graduate Admissions. The Office of Graduate Admissions will give the final approval of the institution to be attended, and will evaluate the transcript on the student's return for the value in semester hours of the work taken. The Office of the Registrar will convert the semester hour value into course values for undergraduate students. The student's academic advisor and dean will approve the academic areas or specific courses for study. Students must be warned of the possibility that they might not receive credit for remedial language study if they are found deficient in the language of the country to be visited.

Attendance at an Institution Not Approved by the Office of Graduate Admissions

Should a student decide to attend a foreign institution which cannot be approved for transfer credit by the Office of Graduate Admissions, it may be possible to arrange for "competency examinations" on his return. Specific details should be worked out prior to departure. Arrangements and agreements should be in writing between the student and his dean, with one copy of the agreement filed in the student's permanent file in the Office of the Registrar. A fee for competency examinations is charged.

Independent Study

If a student plans to be in a part of the world where there is no collegiate level institution, he may arrange prior to his departure for independent reading and/or study projects. In this case, he would be registered at The American University for one or more "90" courses, and would be in all respects an AU student, although not in residence on the campus in Washington.

General Information

Veterans' Information

All students planning to attend The American University under the provisions of a veterans' education program must submit an application to the Veterans' Administration well in advance of the registration date. The proper authorization must then be presented at the time of registration. Veterans receiving education benefits should be prepared to pay all expenses inasmuch as tuition payments are made directly to the veterans by the Veterans' Administration. Veterans who are unable to pay tuition in full at the time of registration may secure a partial deferment. (For more detailed information about the deferred payment plan consult the *Schedule of Classes*.) All veterans are advised to anticipate a delay of approximately two months before receiving their first payment. Veterans are provided further economic guidance by the veterans' counselor.

Motor Vehicles

Freshman, sophomore, and junior students who reside on the campus are not allowed to bring motor vehicles which require licensing to The American University. Seniors and non-resident students who are allowed to bring motor vehicles to the campus must register them at the Office of Security, Room 3 McKinley Bldg., display a valid parking permit, and observe the University's parking and speed limit regulations.

Transcripts

A student may obtain a transcript of his academic record from the Office of the Registrar. Any student may order one transcript free of charge; there is a \$1 fee thereafter.

The University will not issue a transcript which reflects only a part of a student's record, nor will it make copies of transcripts on file from other colleges and universities.

Transcripts will be released only on the written signature request or release of the student concerned.

Distribution of Grades

Grades will be mailed to the student at the earliest opportunity, normally within two weeks after the close of a semester. Grades are not released over the telephone nor in person by the Office of the Registrar.

Grades are not automatically mailed to parents of students. Those students who wish a parent copy mailed, however, may request that service in the Office of the Registrar. Only one parent copy per semester can be made available.

Consortium of Universities

In cooperation with Catholic University, Georgetown University, George Washington University, Howard University, Trinity College, Dunbarton College, Gallaudet College, and D.C. Teachers College, The American University offers its qualified undergraduate and graduate degree students the opportunity to enroll for courses at these other institutions. Such courses must be limited to

those which are not offered by or which may not be immediately available at The American University. Credit earned in this program is considered residence credit.

Freshmen and sophomores are limited to *only* foreign language courses not offered at The American University.

To be eligible for this program, students must: (1) be fully admitted degree students, (2) be actively enrolled, (3) be in academic good standing, (4) be approved by the registrar, and (5) be approved by their dean or department chairman who is responsible for securing approval at the cooperating institution.

Forms to be used for this program are available in the Registrar's Office. Students must follow the registration procedures and pay the tuition rate of this University.

The program is available for fall, spring, and summer sessions.

Summer Sessions

The summer term consists of

- a Mini Session of five weeks
- First Five Week Session
- Second Five Week Session
- Eight or Ten Week Session

Undergraduate and graduate courses are held in both day and evening. Frequently the student will find that the two five week day sessions enable him to complete two semesters of course work. Normally, classes in the eight week session meet in the evening. The mini session offers a range of innovative and experimental courses.

Summer Admission and Course Offerings

Summer sessions are open to students of The American University and to non-degree students (see Admission section for further information). Students currently enrolled in The American University (degree and non-degree) have the option of registering during the advance registration period or at the general registration. Students who are not currently enrolled may register by mail or at the general registration. A schedule of on-campus summer classes, the necessary application form, and additional on-campus summer session information will be found in the summer *Schedule of Classes* available from the Office of Summer Sessions. Completed mail registration forms and other correspondence should be sent as early as possible to the Director of Summer Sessions, The American University, Washington, D. C. 20016.

Summer Facilities

For information regarding housing and food services during the summer, students are advised to write to those offices directly (see *CORRESPONDENCE DIRECTORY*). Also available to summer students are a swimming pool, sauna bath, sports program, theatre, and musical events. All facilities on campus are air-conditioned. Students are allowed to bring automobiles on campus. There is no University registration of vehicles required in the summer and parking is free. In addition to the facilities available at the University, students can take advantage of the easily accessible and varied attractions of the nation's capital. Information on transportation and on special summer events scheduled in the Washington area is available in the Office of Student Activities.

Continuing Education Service

The College of Continuing Education maintains through its day and evening programs academic advisory services, giving special attention to each student's individual needs.

Students are encouraged to seek academic advisement at any time during the semester. A full-time staff of advisors is readily available on the campus from 9:00 am to 5:00 pm Monday through Friday. For the benefit of the evening student, limited advisement is offered from 5:00 to 8:30 pm on an appointment basis.

Particular emphasis is given in the areas of determining academic load, assisting in course selection, and in determining the overall academic standing of the student.

Students are referred to other departments of the University as the need arises. Those considering graduate programs in other departments of the University are urged to consult these departments in advance of registration.

When appropriate, students are referred to the professional services of the University Counseling and Testing Center for assistance in choosing vocational and educational objectives, assessing educational strengths and skills, and for help with problems of personal and social adjustment.

Off-Campus Study

The College of Continuing Education arranges for course offerings at selected off-campus locations in the metropolitan Washington area.

Off-campus programs may include both graduate and undergraduate courses in all fields offered by the University and come under the same regulations and conditions as credit earned in courses meeting in University facilities on campus.

Although the scheduling of off-campus classes follows the general pattern of the University calendar and time schedule, it does not necessarily conform to the on-campus semester dates in all details. The off-campus bulletin for each semester should be consulted for further information.

Registration

Procedure

Registration is conducted on the dates specified on the academic calendar published in the *Schedule of Classes*. In order to register for courses a student must:

- (1) be admitted to the University or be approved for enrollment for non-degree study;
- (2) have a Social Security number;
- (3) secure approval of his program of study from his academic advisor;
- (4) complete the necessary registration forms and pay his tuition and fees; and
- (5) turn in all registration forms to registrar representatives.

More detailed information about registration will be found in the *Schedule of Classes*.

Advance Registration

All students, full-time or part-time, undergraduate, graduate, or non-degree, are eligible to register in advance for fall and spring semesters. No financial obligations are included in Advance Registration. Payment of tuition and fees must be completed by dates announced for each semester in the *Schedule of Classes*. Full details on Advance Registration are issued each semester by the Office of the Registrar.

For summer sessions an advance registration is available to all students who wish to take advantage of it. Details are available from the Director of Special Sessions.

Late Registration

Late registration (subject to a \$10 fee) is permitted during the period provided in the academic calendar. No student will be allowed to register after these dates.

Auditors

A student who wishes to attend a class but who does not wish to participate, take examinations, receive a final grade, or receive credit for the course may register as an auditor. Tuition and fees for auditors are the same as those for credit registered students.

Non-Degree Student Registration

If a student does not wish to pursue a degree program but desires to register for particular courses for which he has the necessary qualifications, he may be considered for admission to the College of Continuing Education as a non-degree student. He receives full academic credits for courses taken (unless he registers as an auditor, in which case he is not responsible for attendance or examinations and does not receive a grade or academic credit).

Changes in Registration

Withdrawals

A student may withdraw from a course from the beginning of a semester until the end of the tenth week of classes without a signature of instructor or advisor. From the beginning of the eleventh week of classes, a course withdrawal will be allowed only with the written approval of the dean of his school or the dean's designate. Consultation with and approval of the instructor may be required. A course withdrawal will be indicated by the grade "W." No grade of "W" can be given in any session after the last class meeting for that session.

An undergraduate student who is withdrawing completely from the University must secure the signature of his dean and a signature from the Office for Student Life on the NOTICE OF TERMINATION OF STUDIES OR WITHDRAWAL form and then file this form in the Office of the Registrar. Students who cease to attend classes but do not file an official withdrawal with the Office of the Registrar may be given final grades of "F." Discontinuation of attendance at class or notification to the instructor does not constitute an official withdrawal.

Refunds or cancellations of tuition are pro-rated and are calculated from the date the COURSE REGISTRATION CHANGE form or NOTICE OF TERMINATION OF STUDIES OR WITHDRAWAL form is filed in the Office of the Registrar and in the Office of Student Accounts. Requests for cancellation of room charges and meal tickets must be processed through the residence halls' Business Management Office and will be subject to standard University regulations.

Students who discontinue class attendance but who do not officially withdraw during the cancellation period will be responsible for payment of the full amount of the applicable tuition and fees.

Adds

Courses may be added through the second week of classes of a semester. From the beginning of the third week of classes, no course adds or section changes will be allowed.

Foreign Students

Foreign students must have any change in registration approved by the Foreign Student Advisor or his designate.

Undergraduate Leave of Absence

Undergraduate students desiring some kind of leave of absence for reasons other than study at another collegiate institution should request an "exit interview" with their dean. At the dean's discretion, based on whether or not it seems desirable to guarantee the student an automatic readmission, the dean will issue a "permit for leave of absence." One copy will be given to the student, one retained in the dean's office, one forwarded to the registrar for filing in the student's folder. This permit will specify a limitation of one year maximum automatic readmission to the same undergraduate program. It will also specify that the permit becomes void if the student attends any domestic or foreign collegiate institution during the period of leave. In such instances, the student should obtain from his dean the Permit to Study at Another Institution.

Special University Programs

Institutes

An institute is a specialized and intensive academic offering of the University designed primarily for persons engaged in professional fields. Institute programs are developed in consultation with specialists in business organizations, government agencies, and national associations located in Washington and consist of formal lectures and seminar discussions, field and laboratory work, reading assignments, and research projects.

The following is a partial listing of institutes offered by the University. For other institutes and institute descriptions, see *INSTITUTES* in the course section of this *catalog*.

- Chemistry cooperative work-study program at research laboratories
- Education workshop in counseling the disadvantaged
- Research and development management institute
- Theoretical and practical training in genealogical research
- Business finance for high school teachers
- Real estate appraisal

The Wolf Trap American University Academy for the Performing Arts

The Academy was inaugurated during the summer of 1971. It is the first nationally conceived summer performing arts education program. The Academy is jointly sponsored by The American University and The Wolf Trap Foundation in cooperation with the National Park Service, U.S. Department of the Interior.

The 1972 components of the Academy are the Academy National Youth Orchestra, some 110 highly talented musicians from 40 states chosen by competitive auditions, which will perform eight concerts at Filene Center, Wolf Trap Farm Park and one at the Washington National Cathedral; and the Dance Residency Program, with four modern dance companies as guest teachers, and some 260 students in the two four-week sessions. The Academy programs run from June 23 through August 20, 1972.

Government Workshop Abroad

The School of Government and Public Administration sponsors a comparative government workshop abroad to Eastern and Western European countries as part of its summer program. Students may earn academic credit by participating in a field study of foreign governments.

Graz Center

The American University is a member of the Association of Colleges and Universities for International-Intercultural Studies, Inc. (ACUIIS). This organization of colleges and universities throughout the United States provides opportunity for selected students to study abroad and receive residence credit at their "home" university. It is similar in most respects to a junior year abroad program. Courses taken through this program are indicated on the permanent record by the prefix GRAZ.

Business Council for International Understanding

In 1959 the Business Council for International Understanding selected The American University as its Washington base for a program to help prepare business executives for international assignments made by their companies. The BCIU/AU Program provides its participants a better understanding of cross-cultural differences; of the social, political, and economic makeup of the country and area to which they are proceeding; and of the techniques which will make them more effective representatives of their respective companies and better interpreters of the United States. Through the facilities and resources available from the various Schools of The American University itself, the federal government, international organizations, and foreign embassies, the participants have access to private consultation on questions of special interest to them. Also, for those who wish it, intensive foreign language study is available.

For additional program information, write to the Office of the Director, BCIU/AU Program, The American University, Washington, D.C. 20016.

Washington Semester Programs

The Washington Semester

Established in 1947 and operated by the School of Government and Public Administration, the Washington Semester Program is an intercollegiate honors program for the study of American government in action. Approximately 220 students from over one hundred colleges across the country attend each year for a full semester in a course of study which includes numerous meetings in the field with public officials, lobbyists, political figures, and others active in the American national government. Individual guided research and elective courses complete the student's program.

The Washington Urban Semester

Patterned on the Washington Semester, the Washington Urban Semester was established in 1969 as part of the program in urban affairs of the School of Government and Public Administration and, since the spring of 1970, has served both the student body of The American University and the member colleges of the Washington Semester Program. Emphasis is placed not on urban politics alone, but also on policies on regional agencies, states, and the national government on urban matters and the politics of intergovernmental decision-making in this field.

The Washington International Semester

Beginning with the fall of 1970, the School of International Service has established a Washington International Semester which, in a cooperative arrangement with the Washington Semester Program, is also open to students from member colleges. Employing a similar format, the International Semester provides its students with an opportunity to observe and study the manifold governmental, international, and private activities which contribute to the United States' posture in world affairs.

Center for the Study of Private Enterprise

The Center, with the cooperation of the Secretary of Commerce, sponsors three lectures in business-government relations each year in addition to the Annual Washington Conference on Business-Government Relations.

Hurst R. Anderson Forensic Society

The Hurst R. Anderson Forensic Society annually sponsors the Congressional Cup Invitational Debating Tournament which is attended by debate teams from schools and colleges from across the nation.

Special Lectures

Each year the Student Confederation and certain classes and clubs bring to the campus, as part of their regular programs, outstanding leaders in government and public administration for lectures and discussions with interested students. Congressmen, staff members of Congress,

administrative officers, political party officials, and other public affairs leaders have met with students in recent years.

The Department of Philosophy and Religion also sponsors guest lecturers who include outstanding spokesmen in the area of philosophy and religion. This department sponsors the annual "Faith and Freedom" lectures which bring distinguished scholars to the campus to discuss some aspect of man's spiritual heritage relative to its implication for the concept of freedom. Lectures on religion are also sponsored by the chaplains.

College of Continuing Education

There are a variety of programs sponsored for groups with special interests and needs by the College of Continuing Education.

The English Language Institute

The English Language Institute offers courses and special programs in English as a foreign language and English as a second dialect. The Institute seeks to serve the University and the Washington community in developing innovative programs suited to the particular needs of foreign students and native speakers of English whose dialect is other than standard.

Off-Campus and In-Service Programs

The College of Continuing Education administers programs offering credit and non-credit courses at various locations throughout the Washington metropolitan area. The various programs are designed to meet the educational needs of students who wish to attend the University on a part-time basis at a center near their home or place of work.

Pride/American University Institute

An undergraduate certificate program for inner-city residents recruited by Pride, Inc., and other community organizations is sponsored by the College of Continuing Education. The curriculum features courses relevant to the educational needs of students recruited from inner-city neighborhoods. These courses are open to students of The American University with the permission of the College of Continuing Education.

Degree Programs

College of Arts and Sciences

DEAN	William M. Wiebenga
Assoc. Dean	Harvey C. Moore
Assoc. Dean	Ruth E. McFeeter
Asst. to the Dean	Annette B. Taylor
Asst. to the Dean	Donald G. Triezenberg
Academic Counselor	Ruth E. Early
Academic Counselor	Dorothy A. Owens
Academic Counselor	Edward J. Van Kloberg
Graduate Counselor	Peggy Flynn

THE COLLEGE OF ARTS AND SCIENCES is committed to an intellectual environment and an educational experience stressing the concept of perpetual self-discovery. Instructional efforts are not confined to the transmission of a prescribed quantity of fixed knowledge for all, but attempt to discover and foster individual human development, challenge intellectual capacities, and assist the student in relating these to the world of today and, more importantly, tomorrow.

In keeping with this emphasis on personal uniqueness, the college offers a student the opportunity to pursue a traditional major in one of its nineteen programs, or to develop, with faculty advice, a program compatible with his emotional and intellectual needs.

As a part of the process of providing a quality educational experience for the student, the College of Arts and Sciences undergoes yearly revisions of its undergraduate and graduate academic programs and requirements. In keeping with the investigation cooperatively shared by faculty and students, the information contained in this section of the *catalog* may be incomplete or in the process of revision. All students are advised to share their academic intent with a faculty advisor, department chairman or the dean's office to ascertain what educational experiences are available.

College of Arts and Sciences

Correspondence Directory: William M. Wiebenga, *Dean*
Ruth E. McFeeter, *Associate Dean for Undergraduate Students*
Harvey C. Moore, *Associate Dean for Graduate Students*

Fields of Study

See Undergraduate Degree Programs, following, and Graduate Degree Programs, page 50.

Full-time Faculty

See the faculty listing following the individual departmental headings.

Undergraduate Degrees

The college's undergraduate instructional efforts are not confined to the transmission of a prescribed quantity of fixed knowledge for all, but attempt to discover and foster individual human development, challenge intellectual capacities, and assist the student in relating these to the world of today, and more importantly, tomorrow.

Emphasizing personal uniqueness, the college offers the opportunity to pursue a traditional department major, or of developing, with faculty advice, a program compatible with the student's interests and intellectual needs. Whether electing a specific major or the interdisciplinary approach, each student is encouraged to select courses that insure the breadth which has been a hallmark of a liberal education.

Undergraduate Degree Programs

Bachelor of Arts

American Studies
Anthropology
Art
Communication
Economics
Education—Elementary
History
Interdisciplinary Studies
Language (French, German,
Russian, Spanish)
Language and Area Studies
Literature
Music
Philosophy
Physics
Psychology
Religion
Sociology
Speech Arts

Bachelor of Fine Arts

Bachelor of Music

Bachelor of Music Education

Bachelor of Science

Applied Mathematics
Biology
Chemistry
Computer Science
Distributed Sciences
Interdisciplinary Studies
Mathematics
Medical Technology
Physical Education
Physics
Radiologic Technology
Sociology
Speech Arts
Statistics

Associate in Arts Degree

Some high school graduates do not, or for some reason cannot, remain in college for four years, yet desire to complete a degree program. This fact, along with the development of the junior college, has contributed to the popularity of the Associate in Arts degree which may be awarded after successful completion of two years' study or its equivalent. The college offers the Associate in Arts degree in general studies only.

To receive the associate degree the student must meet a two-course Composition and Reading requirement, satisfy the language proficiency, and accrue a total of 16 courses with a cumulative average of "C" or better.

Academic Counseling

According to his interests, vocational plans and academic maturity, the undergraduate will plan each semester's program with a faculty counselor. First semester freshmen are counseled by curriculum literature mailed during the summer months. Their response to this inquiry provides a course program which is discussed with an assigned advisor during the orientation period. Transfer students are directed to the department to which they were admitted for program planning.

Degree Requirements

Minimum graduation requirement for all bachelor's degrees is 32 courses. The recent adoption of the course system enables the student to intensify his efforts in a four course semester registration. Except for the two Composition and Reading courses (see page 32 for placement and waiver), each student is free to select course work relevant to his personal goals.

The college-level foreign language courses previously required of all undergraduates in the College of Arts and Sciences were abolished for students enrolled as freshmen as of September 1970. However, the completion of two years of high school-level foreign language courses is a requisite for admission. All students enrolled in the college prior to 1970, students transferring to the college from other schools within the University, students transferring from other colleges and universities, and students being readmitted, must study a language through its intermediate year. Junior and senior transfer students should discuss the language requirement with their department or with a counselor in the dean's office. Under certain circumstances it is possible for a student to complete course work in calculus or the computer sciences in lieu of the language requirement. For information about this substitution consult the associate dean for academic counseling. Foreign students whose native tongue is not English and who have certified their proficiency in English to the satisfaction of the Office of Admissions do not have to be concerned with this requirement.

Departmental Affiliation

THE MAJOR

By the end of the sophomore year, if not before, the student must declare a field of concentration, an academic major. It is in this field that he pursues study in depth and synthesizes his academic knowledge. Major programs are described under departmental sections of the college.

SPECIAL INTERESTS

Students interested in the natural sciences, mathematics, music, art, speech arts and physical education need to take specific courses in their freshman year if they intend to complete a degree in eight semesters. Such students should declare their interest as soon as possible and seek explicit counseling from the appropriate department.

MAJOR DECLARATION

Admission to the University does not automatically constitute admission to a major program. Acceptance is official when specific approval has been received from the departmental chairman or his designate and is recorded by the registrar.

Students who wish to change their major choice from one department to another, or from another school to a College of Arts and Sciences major, must apply through both the departmental office and the dean's office.

CAS Pre-Professional Programs

Pre-professional curricula are offered in dentistry, medicine, law, physical therapy, medical technology, radiologic technology, social work, secondary education, and theology. A student interested in one of these fields should consult the associate dean for academic counseling and for the assignment of an advisor representing the special field of interest.

PHYSICAL THERAPY

Since upper-level courses in physical therapy are not offered by the University, it is expected that the student will transfer at the end of the sophomore year to a school having the required curriculum.

MEDICAL TECHNOLOGY—RADIOLOGIC TECHNOLOGY

The College of Arts and Sciences offers an undergraduate degree which prepares students to enter the challenging clinical laboratory fields. Since modern medical practice relies increasingly upon the results of laboratory examination, the health professions are facing a growing need for

technicians with strong educational backgrounds. Our science departments provide a way for undergraduates to earn a Bachelor of Science degree and be eligible to apply to the Registry of Medical Technologists of the American Society of Clinical Pathologists or the American Registry of Radiologic Technologists for certification. Interested students should address inquiries to Dr. William Banta, Biology Department, after reading the program as outlined on page 81 of this catalog.

PRE-THEOLOGY

Pre-theological students are attracted to The American University because of the presence of the Wesley Theological Seminary on the campus, and the offerings of the Department of Philosophy and Religion. The religious activities under the direction of the University Chaplain assist in providing excellent conditions for pre-professional studies in religion.

PRE-MEDICAL and PRE-DENTAL

The Association of American Medical Colleges (AAMC) publishes annually an *Admissions Requirement Handbook* on pre-medical programs and the requirements for admission to AAMC-approved medical schools. The pre-medical student is urged to study a copy of this publication, which may be ordered through the Association of American Medical Colleges, Department 1B, 2520 Ridge Avenue, Evanston, Illinois 60201.

Medical schools require a minimum of three years of undergraduate studies and strongly recommend completion of the bachelor's degree. There is no inclination to prescribe the undergraduate major in view of the professional schools' interest in students with varied intellectual concerns and backgrounds.

While there is some variation of practice, medical schools in general require the following undergraduate studies: two years of chemistry, one year of biology, one year of physics, and one year of English. In some instances one year of mathematics and two years of a modern foreign language also are required. It is emphasized that these are minimum requirements and, again, the student is urged to consult the *Admissions Requirement Handbook* (available in the offices of the Departments of Biology and Chemistry) and his advisor.

The basic pre-medical pattern applies to pre-dental students as well as to others interested in veterinary medicine and other related fields.

It is usual for medical and dental schools to require a medical aptitude examination administered in the prospective student's junior year in college. The applicant is responsible for arranging for this examination, and inquiries should be addressed to Medical College Admission Test, The Psychological Corporation, 304 East 45th Street, New York, New York 10017.

It is recommended that students interested in a career in medicine consult the Biology or Chemistry Department early in their undergraduate program.

Interdisciplinary Major

This program permits CAS undergraduate students to complete an interdisciplinary major according to their needs, capacities and interests. A program is formulated with the advice of and approval by at least three full-time faculty members from disciplines relevant to the student's defined emphasis, and is subject to the approval of the dean and the review of the University Interdisciplinary Studies Committee.

The initiative in all such degrees is with the student. It is the student who is responsible for determining the central concept around which the program is to center. With the three faculty members, he determines the requirements of his concentration and identifies a sequence of course work to fulfill his program needs. The concept should be formulated in a written statement no later than the junior year. An interdisciplinary major can also be taken as a second major.

The University Interdisciplinary Studies Committee sets all requirements and procedures for this program. Interested students should consult the dean's office for assistance.

Undergraduate Honors Program

A sequence of special seminar courses is available to qualified students. The courses, listed in the semester *Schedule of Classes*, accept a very limited enrollment of undergraduate students who must receive approval from the individual instructors prior to registration. The Department of Literature offers a limited number of Honors English sections each fall and spring semester. Qualified students are selected by the department and the dean's office and receive written invitations to enroll.

In addition to the colloquia, many departments offer to exceptional students the opportunity to pursue honors work in the major. An interested upperclassman should consult his departmental faculty.

Graduate Degrees

The graduate programs of the College of Arts and Sciences are directed toward the development of highly competent scientists, sensitive teachers, creative and critical scholars. To achieve this objective the college provides an academic setting and climate favorable to the free interchange of ideas and the disciplined exploration and testing of the most seminal of these notions. The primary function of this collaborative interchange among mature and maturing scholars is to enhance the latter's understanding of, and sensitivity to, the spirit and styles of intellectual innovation and scholarly inquiry. The student is encouraged to identify research or intellectual problems of his own choosing and actively to seek their solution. These self-defined problems and the creative inquiry they generate are the ultimate influence for the fashioning of the individual student's program of graduate study in the college.

Graduate Degree Programs

Master of Arts

Anthropology
Art History
Church Music
Communication
Economics
Education
History
Interdisciplinary Studies
International Communication (joint program—CAS and SIS)
Language—(French, German, Russian, Spanish)
Language and Area Studies (joint program—CAS and SIS)
Linguistics
Literature
Mathematics
Music
Philosophy
Physics
Religion
Speech Arts
Sociology
Statistics

Master of Education

Master of Fine Arts

Master of Science

Biology
Chemistry
Physics

Master of Science in Science Teaching

Doctor of Education

Doctor of Philosophy

Anthropology
Chemistry
Economics
Education
History
Literary Studies
Mathematics
Philosophy
Physics
Psychology
Sociology
Statistics

Admissions—See page 9 and the departmental description.

Degree Requirements—See page 26 and the departmental description.

Academic Counseling

Programs of graduate study usually consist of a combination of courses and research activities, some selected by the student to develop his individual interests and some presented by the department concerned. Graduate counselors on college policy are available in the dean's office, and specific counseling about department requirements is given by each department. It is recommended that at the beginning of his graduate career each student should determine the details of the entire advisory system.

American Studies

Correspondence Directory: Earl H. Brill, *Chairman*

Fields of Study

Interdepartmental program with course work taken in art, anthropology, communication, education, economics, international relations, literature, speech arts, music, philosophy, religion, history, public administration, government.

Full-time Faculty

Associate Professor: Charles C. McLaughlin

Assistant Professor: Earl H. Brill

Undergraduate Degree

Bachelor of Arts

The program in American Studies is available through registration in the College of Arts and Sciences. Students interested in this program should seek the advice of the Chairman of the American Studies Committee.

Admission to the Major

A student who has earned an average of 2.50 in two courses related to the major qualifies for admission. Consult the Chairman of the American Studies Committee for additional qualifications.

Composition and Reading Requirement—See page 25.

Language Requirement—See page 48.

Major Requirements

Students have an opportunity to design their own preferences into this major program within the framework of the following requirements. The total major requirement is fourteen courses.

(A) American Studies courses required of all majors:

- 02.200 American Civilization I
- 02.201 American Civilization II
- 02.400 Colloquium in American Studies
- 02.401 American Studies Senior Seminar

(B) A selection of four courses from a single department dealing with some aspect of American life.

(C) A further selection of three courses from some other single department, also dealing with American life.

(D) A selection of three courses which may be distributed over several departments. These courses may deal with American life or they may be chosen to give the student some understanding of another culture.

Consult the chairman for the list of courses that may be used to satisfy the requirements under B, C, and D above.

Departmental Honors

Students with a 3.0 average and a 3.25 average in their major courses may apply for Honors work. During the senior year they will complete a major research and writing project under the direction of the chairman.

Anthropology

Correspondence Directory: John J. Bodine, *Chairman*

Fields of Study

History of anthropological method and theory, ethnology and social anthropology, ethnography, linguistics, archeology, physical anthropology, ethnohistory, culture change, field research at undergraduate and graduate levels.

Full-time Faculty

Professor: Katherine S. Halpern, Harvey C. Moore, A. L. Vilakazi

Associate Professor: John James Bodine, George L. Harris, Ruth Landman, Charles W. McNett, Jr.

Assistant Professor: Geoffrey L. Burkhart, Gary Hume, William L. Leap

Undergraduate Degree**Bachelor of Arts****Admission to the Major**

A student who has earned at least a 2.00 average and better than a C average in two or more department courses is eligible for admission.

Composition and Reading Requirement—See page 25.

Language Requirement—Minimum CAS Requirement. See page 48.

Students planning to continue with graduate work will be encouraged to acquire reading skill in one or more modern foreign language.

Departmental Requirements for Majors*Introductory Courses*

3.201 Introduction to Cultural Anthropology

3.202 Biocultural Evolution

Courses at .300-or-Above Level

3.331 Variation in Man

3.332 Old World Prehistory, 3.333 New World Prehistory,
or 3.334 Anthropological Archeology

3.335 Ethnographic Survey or 3.336 Social Structure

3.337 Anthropological Linguistics I

3.543 Analytical Methods: Quantitative and Qualitative

3.545 Theory in Anthropology

and three electives in anthropology, at the .300 level or above, to be chosen in consultation with departmental advisor.

Related Courses

Three courses in one related field with two of these at .300 level or above.

Each student in the major consults with his advisor regularly to plan a program suitable to his interests.

Departmental Honors

For students writing a superior senior thesis. Consult departmental advisor for details.

Electives

To complete a minimum of 32 courses.

Interdisciplinary Programs

The department will arrange interdisciplinary programs for interested students.

Graduate Degrees**Admission**

Candidates for graduate degrees are subject to University Graduate Degree Requirements, see page 26. Further, a B average in the undergraduate major and two academic letters of reference are required. An undergraduate major in anthropology is not required. Graduate program information is available from the department.

Master of Arts

Course Requirements

Minimum of 30 hours of approved graduate work including at least 12 hours on the .600 or .700 level, of which normally six hours is 3.797 Master's Thesis Seminar. Designated core courses in theory and method are mandatory in first year of graduate work.

Comprehensive Examinations

Two examinations including one in the general history of anthropological theory and method and one in a major field or area of concentration.

Other Requirements

Thesis and oral defense of thesis.

Doctor of Philosophy

Course Requirements— See page 26.

Minimum of 72 hours of approved graduate work is required, including 3.799 Doctoral Dissertation Seminar (may be repeated for up to 24 hours). Students entering the Ph.D. program with M.A. degrees in anthropology earned elsewhere must complete 30 hours of course work in residence plus 12 hours of dissertation credit. Students registered at the University and completing the requirements of a master's degree except for the master's thesis may substitute six hours of course work or research projects and proceed to doctoral work if their performance is of enough distinction in the minds of the faculty to warrant such a decision.

Comprehensive Examinations

(1) An examination on general knowledge of anthropology is required within 24 hours of graduate work for students who enter the Ph.D. program without an M.A. in anthropology. For students with an M.A. in anthropology from other institutions, this examination will be taken during the first year of graduate work.

(2) A minimum of four comprehensive examinations, including 3.006, one in a major field, one in an approved elective subfield of specialization, and one in an approved area of concentration. At least one comprehensive examination must be an oral examination.

Other Requirements

A dissertation and an oral defense thereof.

A working knowledge of two languages useful as tools in library and/or field research or an acceptable substitute for one language is required. Statistical or computer analysis would provide such a substitute. Choice is to be evaluated and approved by the department in terms of the nature of the student's research interests and the needs for a career in anthropology. Admission to candidacy for the Doctor of Philosophy degree is contingent upon a passing performance on four comprehensive examinations and fulfillment of the tool requirements specified above.

Graduate Degrees in More Than One Discipline

The department will make arrangements for interdisciplinary M.A. programs; students submit a specific program for prior approval, and take at least one comprehensive in this department.

Graduate Comprehensive Fields

Core Field

3.006 History of Anthropological Method and Theory

Major Fields

3.016 Ethnological Methods

3.017 Archeological Methods

3.018 Linguistic Methods

3.019 Physical Anthropological Methods

Subfields and Areas

3.020 Subfield of Specialization

3.021 Area of Concentration

3.022 Cultural Area Analysis (with emphasis on specified area)—for non-majors only

Consult Departmental Graduate Guide for details.

Art

Correspondence Directory: Helene M. Herzbrun, *Chairman*

Fields of Study

Fine arts, design, interior design, art history, art education.

Full-time Faculty

Professor: Robert F. Gates, Helene McKinsey Herzbrun, Ben L. Summerford

Associate Professor: Lothar Brabanski, Robert A. D'Arista, Irene W. Eno, Mary Garrard, Marjorie Hirano, Luciano Penay, Carol Ravenal, Robert Shaffer, Theodore Turak

Undergraduate Degrees

Bachelor of Arts, Bachelor of Fine Arts

Admission to the Majors

The department counsels freshmen and transfers. Faculty approval, and satisfactory completion of four department courses, is necessary for formal admission to the major leading to a Bachelor of Arts Degree.

Upon completion of three semesters of studio work, students may apply for admission to a program leading to the degree Bachelor of Fine Arts. This program is designed to meet the needs of the exceptional student who desires an intensive studio experience within the context of the liberal arts. Admission is subject to the approval of a portfolio, judgment of grades, and a personal interview.

Students transferring from other departments within the University or other colleges and universities with 4 or more courses in art are required to submit a portfolio of work for approval by the Department of Art before admission to the major. Admission to the University without such approval at the time of transfer does not guarantee admission as an art major. Such students may be required to make up deficiencies in the studio by taking additional courses.

Composition and Reading Requirement—See page 25.

Language Requirement—See page 48. Art history majors are urged to acquire intermediate proficiency in French or German.

Departmental Requirements—Bachelor of Arts

Major Courses

Students majoring in art complete one of the following five programs of study (these are minimal requirements).

FINE ARTS—12 studio courses (painting, drawing, sculpture, printmaking, etching, including 5.104 and 5.120) with at least 2 courses in three of four studio fields.

ART EDUCATION—10 studio courses with at least 1 course in each of five studio fields (painting, drawing, sculpture, ceramics, and printmaking) and at least 4 courses in one of these studio fields. 2 courses, 5.370 Crafts for the Art Teacher and 5.371 Methods of Teaching Art, are taken in conjunction with 21.445 Student Teaching in the Secondary Schools: see Education Department.

DESIGN—10 design courses and 2 studio courses.

INTERIOR DESIGN—6 interior design courses, 4 design courses including 5.350-1 Design Fundamentals I & II and 5.348-9 Design Techniques I & II, and 2 studio courses.

ART HISTORY—10 art history courses including 7.100-1 Survey of Art I & II and 7.400 Seminar for Art History majors.

Related Courses

All art majors (in any of the five programs listed above) are required to take 4 art history courses including 7.100-1 Survey of Art I & II. Those in the interior design program are to include 7.102-3 Survey of Decorative Arts I & II in their art history requirements.

Majors in the art education program are required to take 4 art history courses, 21.300 Foundations of Education, and 21.445 Student Teaching: Secondary Schools.

All art history majors are required to take 2 studio courses and 4 courses in related humanities or social sciences at the .300 level or above.

Electives

To complete 32 courses.

Departmental Requirements—Bachelor of Fine Arts

Upon completion of three semesters of studio work, students may apply for admission to a program leading to the Bachelor of Fine Arts degree. This program is designed to meet the needs of the exceptional student who desires an intensive studio experience within the context of the liberal arts. Admission is subject to the approval of a portfolio, judgment of grades, and a personal interview at the time of application for a BFA major.

Students are required to have 18 studio courses with at least 7 courses in one of three areas of concentration (painting, sculpture and graphics), plus 4 art history courses.

Electives

To complete a minimum of 32 courses. The remaining 10 courses must be taken from other departments in the College of Arts and Sciences.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below are minimal from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Fine Arts

PAINTING OR SCULPTURE

Admission Requirements

A minimum average of 3.00 in the undergraduate major and departmental approval of applicant's portfolio of art work is required.

Course Requirements

Requirements include a minimum of 36 credit hours of approved graduate work, including 6 credit hours in 5.797 Master's Thesis Seminar, 21 credit hours in studio chosen from 5.520-1; 5.533; 5.560; 5.700; 5.792; 5.793; and 5.794; and 9 credit hours in graduate art history.

Written Comprehensive Examinations

Two are required, including one in theory and techniques of painting or sculpture, and one in a specialized field of art history.

Core Fields in fine arts (select one):

- 5.001 Theory and Techniques of Painting
- 5.002 Theory and Techniques of Sculpture

Specialized Fields in art history (select one):

- 5.015 Sculpture: Renaissance through Modern
- 5.018 Painting: Renaissance and Baroque
- 5.019 Painting: Rococo through Modern

Thesis

Execution of an original work or works of art defended by written critical analysis of problem undertaken.

Master of Arts

ART HISTORY

Admission Requirements

A minimum grade average of 3.00 in the undergraduate major is required. If the undergraduate major was not in art history, students admitted to the program will be required to have

completed or to complete 18 hours in art history in addition to 30 hours required for the degree. Reading knowledge of French, German or Italian must be certified during first semester (see tools of research requirement).

Course Requirements

A minimum of 30 credit hours of approved graduate course work (combined total of at least 48 credit hours of undergraduate and graduate art history) including 6 credit hours in graduate research seminars (7.792 or 7.793).

Written Comprehensive Examinations

Two, including one examination in core field and one in specialized field.

Core Field

5.003 History of Western Art (Greek to Modern)

Specialized Fields (select one)

7.009 Medieval Art

7.010 Renaissance Art

7.011 Baroque and Rococo Art

7.012 Nineteenth and Twentieth Century Art

7.020 Art in the United States

Thesis Substitution

Satisfactory completion of a substantial research paper in each of two master's research seminars on the .600-.700 level is required to complete the degree.

Biology

Correspondence Directory: Richard R. Anderson, *Chairman*

Fields of Study

General biology, microbiology, plant sciences, developmental biology, genetics, immunology, physiology, ecology (environmental science), medical technology, radiologic technology, and interdisciplinary science studies.

Full-time Faculty

Professor: Edward J. Breyere, Sumner O. Burhoe (Emeritus)

Associate Professor: Richard R. Anderson, Robert L. Strautz

Assistant Professor: William C. Banta, Richard H. Fox, Billy R. Griffin, Russell L. Peterson, Edward R. Pierce

Undergraduate Degrees

Bachelor of Science, Bachelor of Arts

Admission to the Major

Freshmen and transfer students will be counseled by the department. Students who complete General Biology I and II with a grade of C or better are admissible to the major.

Composition and Reading Requirement—See page 25.

Language Requirement—See page 48.

Bachelor of Science:

Departmental Requirements

Required Courses

9.101, 9.102 General Biology I and II (waived with advanced placement)

9.200 Morphogenesis of the Vertebrates

9.201 Morphogenesis of the Vertebrates Laboratory

- 9.250 Cell Biology
- 9.304 Comparative Plant Anatomy or 9.321 Plant Physiology
- 9.356 Genetics
- 9.357 Genetics Laboratory

Elective Courses in Biology

Elective courses from .200 through .500 level to total 10 courses in biology one of which may be Independent Readings (9.390 or 9.590) or Independent Study Project (9.490).

Related Courses

- 15.310-.311, 15.320-.321 Organic Chemistry I and II with laboratories (proof of competence in General Chemistry is required.)
- 51.220-.221, 51.222-.223 Introduction to Physics I and II with laboratories.

Tool courses

- 41.101 Elements of Calculus (competence in basic mathematics is assumed as a prerequisite for this course.)
- 69.202 Basic Statistics

Electives

To complete a minimum of 32 courses.

Bachelor of Arts: (Not designed for students planning to enter medical, dental school or graduate school in biology.)

Departmental Requirements

Required Courses

- 9.101, 9.102 General Biology I and II
- 9.200 Morphogenesis of the Vertebrates
- 9.304 Comparative Plant Anatomy or 9.321 Plant Physiology
- 9.310 Invertebrate Zoology
- 9.330, 9.331 Human Anatomy and Physiology I and II
- 9.356 Genetics
- 9.523 Bio-Ecology

Elective Courses in Biology

One free elective to be chosen from the .100 through the .500 level (except 9.100).

Related Courses

- 15.120 and 15.130 General Chemistry I and II
- 15.121 and 15.131 General Chemistry I and II Laboratory

Electives

To complete a minimum of 32 courses.

Graduate Degree

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Science:

Course Requirements

Minimum of 32 hours of approved graduate work, including 9.797 Master's Thesis Research (6) and 2 hours of Graduate Seminar 9.700.

Written Comprehensive Examinations

- 9.001 General Biology and one selected from the fields listed below.

Graduate Comprehensive Examination Fields

- 9.001 General Biology
- 9.002 Plant Sciences
- 9.003 Developmental Biology
- 9.004 Physiology
- 9.005 Microbiology
- 9.006 Ecology
- 9.007 Genetics
- 9.008 Immunology

Other Requirements

Advancement to candidacy, thesis and oral defense.

Other Graduate Degrees

See page 83 for information concerning requirements for the Master of Science in Science Teaching.

Chemistry

Correspondence Directory: Leo Schubert, *Chairman*

Fields of Study

General chemistry, biochemistry, organic chemistry, inorganic and nuclear chemistry, physical chemistry, analytical chemistry, and earth sciences.

Full-time Faculty

Professor: Mary H. Aldridge, Robert T. Foley, Matthew Norton, Frederick A. H. Rice, Leo Schubert

Associate Professor: Ann Baker Braun, Frederick Carson, Doris E. Hadary, Paul F. Waters

Assistant Professor: Thomas S. Cantrell, Albert F. Hadermann

Senior Research Scientist: Tage Astrup, Horace S. Isbell

Undergraduate Degree

Bachelor of Science**Admission to the Major**

The department counsels freshmen and transfers as well as all declared chemistry majors. A 2.00 average is necessary for admission to the major.

Composition and Reading Requirement—See page 25.

Language Requirement—See page 48.

Competence in a modern foreign language, particularly German or Russian, through the intermediate level is urged.

Departmental Requirements*Major Courses*

- 15.120 and 15.130 General Chemistry I and II
- 15.121 and 15.131 General Chemistry I and II Laboratory
- or
- 15.200 Chemical Principles and 15.210 Qualitative Inorganic Analysis and 15.211 Qualitative Inorganic Analysis Laboratory
- 15.310 and 15.320 Organic Chemistry I and II
- 15.311 and 15.321 Organic Chemistry I and II Laboratory
- 15.350 Quantitative Analysis
- 15.351 Quantitative Analysis Laboratory
- 15.410 and 15.420 Physical Chemistry I and II
- 15.411 and 15.421 Physical Chemistry I and II Laboratory
- 15.460 Instrumental Quantitative Analysis

- 15.461 Instrumental Quantitative Analysis Laboratory
- 15.550 Advanced Inorganic Analysis
- 15.552 Qualitative Organic Analysis or 15.560-.562 and 15.561-.563
Biochemistry I and II

Related Courses

- 51.220 and 51.221 Introduction to Physics I and II
- 51.222 and 51.223 General Physics Laboratory I and II

Tool Courses

- 41.111, 41.222, 41.223, Calculus I, II, and III

Electives

To complete a minimum of 32 courses. The student is urged to consider computer science, earth sciences, and biology as electives.

Cooperative Work-Study Program

A cooperative work-study program is part of the program of the Chemistry Department. Work at the research level is available through several cooperating research organizations. The undergraduate student is expected to work full-time for six months and study at the University full-time for five months. A degree may be earned in five years or less. The income received through this program is adequate for self-support through the B.S. degree.

Other Undergraduate Degrees

See page 80 for information concerning requirements for the Bachelor of Science with major in distributed sciences.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that differ from these requirements are nonetheless binding upon the student.

Master of Science

Admission Requirements

A B.S. in chemistry with a 2.70 cumulative index in chemistry from an accredited college and approval of The American University Chemistry Department faculty.

Course Requirements

A minimum of 30 hours of approved graduate work, including 15.797 Master's Thesis Seminar (6) and 15.700 Seminar in Chemistry (1). Before this degree is awarded, the student must have completed:

- (1) 15.600 and 15.601 Advanced Physical Chemistry I, II (6) or
15.520 and 15.521 Advanced Organic Chemistry I, II (6).
- (2) 15.551 Topics in Inorganic Chemistry (3) or
15.560 and 15.561 Biochemistry (8).

The entire course of study must constitute a unified program approved by the student's advisor and the chairman of the department. Before the M.S. is awarded the student is expected to have completed either in graduate study or in an undergraduate program:

- 15.550 Advanced Inorganic Chemistry (3) and
- 15.522 Qualitative Organic Analysis (3).

Advancement to Candidacy

The student is expected to file for advancement to candidacy upon completion of 12 graduate credits.

Cumulative Examinations

Cumulative examinations are administered by the department. Each field in chemistry will schedule at least four such examinations each year. A minimum of three cumulative examinations

must be taken. Of these, two must be in the major field and one in a minor field. The student should consult with the department chairman about detailed information of the cumulative examination requirements. Fields for the examinations are:

- 15.001 Biochemistry
- 15.002 Organic Chemistry
- 15.003 Inorganic and Nuclear Chemistry
- 15.004 Physical Chemistry
- 15.005 Analytical Chemistry

Thesis Option (6 credit hours)

The student must present a thesis based on laboratory or theoretical research. The thesis must be of publishable quality. The student choosing the thesis option must defend his thesis successfully before his committee.

Non-Thesis Option (6 credit hours)

The student must present a scholarly paper based on a critical review of the literature. The paper must be of publishable quality. To demonstrate the student's ability to carry on original and independent research, he must submit two avenues of investigation for research and defend these, as well as his paper, successfully before his committee. This option is available only under special circumstances for those who intend to continue work towards the Ph.D.

Oral Examination

An oral defense of the thesis is required. Each student must defend successfully his research work or research ideas (non-thesis option) and his thesis before his committee. The oral is open to the public.

Tool of Research

The student is required to pass an examination or its equivalent in one of the following:

- Russian
- German
- French
- Computer Programming
- Statistics

Other Master of Science Degrees

See page 83 for information concerning requirements for the Master of Science in Science Teaching.

In addition, an M.S. in Chemistry (Information Science) is available through this department in cooperation with the Scientific and Technical Information System Program of the Center for Technology and Administration.

Doctor of Philosophy

Admission Requirements

Either—

1. A 3.00 cumulative index in chemistry from an A.C.S. accredited college and an acceptable grade on the Graduate Record Examination and approval by The American University Chemistry Department faculty, or
2. An M.S. or M.A. in Chemistry and approval by The American University Chemistry Department faculty.

Course Requirements

At least 50 hours of course credits, plus two hours of 15.700, Seminar in Chemistry, with the remainder in 15.799, Doctoral Dissertation Seminar (12-20 credit hours) to total 72 credits. Those transferring from other universities with an M.S. will have a maximum of six hours transfer credit in Master's Thesis seminar accepted towards the credits required for 15.799.

All students must complete the following core courses or submit reasonable approved substitutes:

- 15.520-15.521 Advanced Organic Chemistry I and II (6)
- 15.551 Topics in Inorganic Chemistry (3)

15.560-15.563 Biochemistry I and II (8)

15.600-15.601 Advanced Physical Chemistry I and II (6)

Advancement to Candidacy

The student admitted directly from a bachelor's program is expected to file for advancement to candidacy upon completion of 18 credits. The student admitted from another university with a Master of Science degree is expected to file for advancement to candidacy upon completing nine semester hours.

Cumulative Examinations

Cumulative examinations will be administered by the department. A minimum of four cumulative examinations will be scheduled annually in each of the five cumulative fields. A minimum of six cumulative examinations must be taken; four must be in the major field and two in a minor field. Details on the point system and the nature of the examinations are available from the departmental office.

The fields for the cumulative examinations are to be selected from:

15.001 Biochemistry

15.002 Organic Chemistry

15.003 Inorganic and Nuclear Chemistry

15.004 Physical Chemistry

15.005 Analytical Chemistry

Dissertation

The student is expected to have selected his research preceptor during or before his second year. The research should demand approximately one year of full-time effort.

Oral Examination

An oral defense of dissertation will be required. During this examination, the student must present at least one original research idea. He is expected to defend his research idea and develop a plan for pursuing it.

Should the research preceptor deem it appropriate, a manuscript suitable for publication in a journal will be required.

Tools of Research

The student is required to pass examinations or their equivalent in two of the following:

Russian

German

French

Computer Programming

Statistics

The student is required to maintain continuous registration. See the section in this *catalog* which refers to **Maintaining Matriculation** under Required Graduate Study Registration.

Communication

Correspondence Directory: Robert O. Blanchard, *Acting Chairman*

Fields of Study

Broadcasting, broadcast journalism, communication research, film, international communication, print journalism, visual communication, mass communication and society.

Full-time Faculty

Professor: Edward L. Bliss, Jr., H. D. Crawford, Hamid Mowlana

Associate Professor: Robert O. Blanchard, Donald T. Moore, Lewis W. Wolfson

Assistant Professor: Glenn P. Harnden, James John Onder, Jack E. Orwant, Joanne S. Yamauchi

Undergraduate Degree

Bachelor of Arts

Admission to the Major

The department counsels freshmen and transfers. For formal admission to the major, a student must have a 2.50 average and be approved by the department.

Composition and Reading Requirement—See page 00.

Language Requirement—See page 00.

Departmental Requirements

Major Courses: 10 (maximum)

The student is required to take two core courses, four general communication courses and four courses in one sequence.

Note: 300 level or above courses are open to juniors and seniors only.

Core Courses

- 17.100 Introduction to Mass Communication
- 17.101 Writing for Mass Communication

General Communication: Four courses, one from each set, or from independent study or special topics approved by the department.

Set 1

- 17.381 Development of Broadcasting
- 17.500 Communication History
- 17.558 History of Motion Pictures

Set 2

- 17.501 Legal Aspects of Communication
- 17.503 Mass Media and Society
- 17.507 Freedom of Information
- 17.531 International Communication Systems

Sequences: After completion of core courses, the student, in his junior year, selects *one* of the following sequences:

PRINT JOURNALISM

Magazine Concentration:

- 17.320 Reporting I
- 17.325 Feature Article Writing or 17.524 Reporting II
- 17.342 Magazine Journalism
- 17.343 Photography or 17.532 Publication Layout and Design or an approved independent study

Newspaper Concentration:

- 17.320 Reporting I
- 17.322 Editorial Policies and Methods I
- 17.325 Feature Article Writing or 17.524 Reporting II
- 17.343 Photography or 17.520 Editorial Policies & Methods II or 17.524 Reporting II or independent study

BROADCASTING-FILM

Broadcasting Concentration:

- 17.333 Fundamentals of Radio-TV-Film
 - 17.381 Development of Broadcasting-Film
- Two of the following:
- 17.382 Writing for Broadcast-Film
 - 17.383 Radio Production and Programming
 - 17.581 Broadcasting and Education
 - 17.583 Film Production and Direction
 - 17.584 Television Production and Direction

Film Concentration: (Offered in cooperation with the Department of Literature.)

- 17.343 Photography
- 17.558 History of Motion Pictures
- 23.396 The Cinema
- 17.583 Film Production and Direction
- 17.590 Independent Study
- 23.510 Creative Writing I or 23.511 Creative Writing II
- One elective in radio, television or film production

BROADCAST-JOURNALISM

- 17.320 Reporting I
- 17.333 Fundamentals of Radio-TV-Film
- 17.385 Broadcast Journalism I
- 17.528 Broadcast Journalism II

Qualified students in this concentration may receive departmental permission to participate in the production of documentary films and broadcasts.

Related Courses

The student is required to take two history courses, one course in both economics and international service or government, and one course in either psychology, sociology or anthropology.

In addition, the student is required to complete three courses (.300 level or above) in one of the above fields.

Each student is directed toward a broad arts and sciences background and second major equivalent.

Interdisciplinary Communication Degree

Film

A program in film, conducted through the Office of Interdisciplinary Studies, is offered jointly by the Department of Communication and the Department of Literature (consult the Department of Communication).

Mass Communication and Society

A program combining sociology and communication is offered through the Office of Interdisciplinary Studies (consult the Department of Communication).

Visual Communication

A program in visual communication, conducted through the University Office of Interdisciplinary Studies, is offered jointly by the Department of Communication and the Department of Art (consult the Department of Communication).

Tools

Typing ability is required of all majors.

Majors are expected to gain practical communication experience in the nation's capital through Department of Communication on or off-campus internships, work-study, or summer employment. After approval of advisor, see department chairman for placement.

Electives

To complete a minimum of 32 courses.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts in Communication

Admission Requirements

A minimum undergraduate cumulative index of 2.50 in overall study and 2.75 in the major index are required for admission (using the 4-point scale). Previous communication experience, academic or professional, is not required. However, evidence of professional commitment and direction, related to one of the graduate sequences, is required of all applicants. Those without previous experience may be asked to schedule an interview with the faculty before admission. (For prerequisites, see "Other Requirements" below.)

In general, admission is for the fall semester. Entry into the graduate program spring or summer session, while possible in some cases, will make for scheduling and timetable difficulties. Admission is for full-time students only. Part-time students are referred to special communication programs available in the College of Continuing Education.

Note to all potential applicants: Address all initial inquiries to the Chairman, Department of Communication. Send application forms, transcripts and other completed forms to the Director of Graduate Admissions of The American University. Address all inquiries on the status of your application to both the Graduate Admissions Office and the Department of Communication Chairman.

Requirements

Requirements include 33 hours of approved graduate work in *General Communication* (12), and in one the the *Graduate Communication Sequences* (12); graduate study and research in an approved related area (9); and one written comprehensive examination. In some cases, a thesis may be approved in lieu of study and research in an approved related area. In that case, three additional hours in research and methodology or relevant preparatory course is required in addition to six hours of thesis.

General Communication (12 hours):

Required for all M.A. candidates are Seminar in Public Affairs (17.710), Methodology of Communication Research (17.760), and two of the following:

- 17.500 Communication History
- 17.501 Legal Aspects of Communication
- 17.503 Mass Media and Society
- 17.507 Freedom of Information
- 17.531 International Communication Systems
- 17.690 Approved independent study

Graduate Communication Sequences (12 hours):

One of the following professional sequences:

PRINT JOURNALISM

Reporting of Public Affairs (17.724), Government News Reporting (17.536), Seminar in Journalism (17.720), and one of the following:

- Advanced Feature Article Writing (17.526)
- Editorial Interpretation (17.521)
- Editorial Policies and Methods II (17.520)
- Publication Layout and Design (17.532)
- Independent reporting project, internship or independent study

BROADCAST JOURNALISM

Reporting of Public Affairs (17.724), Broadcast Journalism II (17.528), Seminar in Journalism (17.720), and one of the following:

- Broadcasting in the Public Interest (17.782)
- Television Production and Direction (17.584)
- Film Production and Direction (17.583)
- Television Programming (17.588)
- Independent documentary project, internship or independent study

BROADCASTING FILM

Two from each of the following two sets as approved by student's advisor:

(1) Seminar in Broadcasting-Film (17.589), History of Motion Pictures (17.558), Television Programming (17.588), Broadcasting in the Public Interest (17.782).

(2) Film Production and Direction (17.583), Television Production (17.584), Independent production projects (see "Independent Graduate Study" at end of course listings below).

Related Area of Study

The student will take courses (9 hours) in an area related to communication that has been approved by the department. Students can arrange programs in such fields as urban affairs, politics and government, and international affairs, but other areas of social sciences or humanities also may be suitable.

Other Requirements

A grade average of B (3.00) or better must be maintained during all graduate work counting toward the degree. The student is required to maintain continuous full-time registration. A grade of B (3.00) or better is required in 17.710 and in 17.760. (See the section in this *catalog* which refers to Maintaining Matriculation.)

Comprehensive Examinations

In general communication, the examination fields include the legal, historical, social, political, comparative and research aspects of communication.

Timetable

The full-time student should complete all requirements for the M.A. in three semesters.

Communication Research

Graduate students enrolled in any of the communication M.A. sequences can choose communication research as their related area of study.

In addition, the Department of Communication and the Department of Speech Arts offer a joint program in communication research.

M.A. in Communication Research

An M.A. in Communication Research can be arranged through the Office of Interdisciplinary Studies by combining study in the Department of Communication and the Department of Speech Arts with a concentration in sociology, psychology, and computer science. (See department chairmen.)

Graduate Courses

17.601 Experimental Research in Communication

17.760 Methodology of Communication Research

67.580 Communication in Small Groups

Masters of Arts in International Communication

This degree is administered jointly with the School of International Service and the Department of Communication of the College of Arts and Sciences.

Prerequisite

The bachelor's degree or its equivalent is required. The student's background must include a strong major in social and behavioral sciences or communication. Admission to this program will be restricted to students who have earned at least a "B" average in a relevant undergraduate major as well as a cumulative "B" average in all undergraduate work in an accredited institution. A relevant major in undergraduate study is defined as a minimum of 24 hours in subjects appropriate to the degree program selected.

Requirements

All candidates for the M.A. in International Communication must pass a tool of research examination in one modern language. The candidate must possess a good level of proficiency in speaking and reading of a foreign language.

A total of 30 hours of approved graduate work exclusive of deficiencies assessed at the time of admission is required:

Six hours in methodology of research (at least three hours must be in 17.760 Methodology of Communication Research).

Nine hours in international communication (at least three hours must be in 17.531—International Communication Systems).

Nine hours in one of the following social sciences and related areas: international relations, comparative politics, economic development, social psychology, cultural anthropology, or general communication theory.

Six hours of thesis or two substantial research projects prepared in conjunction with .600 and .700 level seminars in international communication with at least one in the Department of Communication.

Comprehensives

Candidates must take written comprehensive examinations in two fields (international communication and a related area) in consultation with a faculty advisor and certified by the dean of the School of International Service or program director.

Address all initial inquiries to:

Associate Dean
School of International Service
The American University
Washington, D.C. 20016

Economics

Correspondence Directory: Vito Tanzi, *Chairman*

Fields of Study

Price and income theory, contemporary economic theory, history of economic thought, economic history of Europe, economic history of the United States, history of economic development, theory of political economy, economic growth and development, economic development policy (not open to students in Dept. of Economics), labor economics, international economics, international economic policy (not open to students in Dept. of Economics), comparative economic systems and Soviet-type economics, monetary economics, public finance and fiscal policy, mathematical economics, econometrics, quantitative method in economics (open only to M.A. candidates), urban economics.

Full-time Faculty

Professor: W. Donald Bowles (Vice President for Academic Affairs), Ernst Correll (Emeritus), Gary Fromm, Branko Horvat (Visiting), Warren S. Hunsberger, Fritz Karl Mann (Emeritus), E. J. Mishan (Joint with London School of Economics), Cynthia Taft Morris, Simon Naidel (Emeritus), Frank M. Tamagna, Vito Tanzi, Albert Waterston, James H. Weaver, Charles K. Wilber

Associate Professor: Nancy S. Barrett, Rafood Boddy

Assistant Professor: Jerolyn Lyle, Ronald Müller, Larry Sawers, Howard Wachtel

Instructor: Calvin DePass, Richard M. Simon

Undergraduate Degree

Bachelor of Arts

Admission to the Major

The department counsels freshmen and transfer students. Formal admission to the major requires a 2.00 average and approval of the department undergraduate advisor.

Composition and Reading Requirement—See page 25.

Language Requirements—See page 48.

Departmental Requirements

REQUIRED COURSES

- 19.100 Introduction to Economics
- 19.300 Price Theory and Its History
- 19.301 Income Theory and Its History
- 19.314 Junior/Senior Seminar

ELECTIVE COURSES

Three courses chosen from departmental offerings, .300 level or above.

QUANTITATIVE COURSES

19.310 Introduction to Econometrics or 69.202 Basic Statistics is required. Students are urged to take 19.305 Introduction to Quantitative Economics.

RELATED COURSES

Four courses at the .300 level or above selected from the following fields, with not more than 3 courses in any one: anthropology, business administration, education, government, history, international relations, mathematics, philosophy, psychology, sociology.

Note: Grade of "C" or better is required in all major, tool and related courses. Students planning to continue on to graduate work in economics are advised to take mathematics as a related field.

Electives

To complete a minimum of 32 courses.

Students majoring in economics are required to complete a minimum of seven courses in economics. All .500-level courses in the department are open to undergraduates who have the necessary prerequisites. A student should not use his electives entirely in his own field. For some purposes, 10.306 and 10.307, Accounting I and II, are useful electives.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts

Admission—See page 9.

The Graduate Record Examination is recommended. In general an overall grade point average of B (3.00) in the last two years of undergraduate work is required.

Course Requirements

Minimum of 30 hours of approved graduate work is required. This must include 19.500 Price Theory and 19.501 Income Theory I. 19.522 Econometrics I or an approved substitute is required. Either 19.305 Introduction to Quantitative Economics or 19.521 Quantitative Economics Analysis is required. Students must either complete a Master's thesis, two non-thesis seminars, or two independent research projects which have been approved as a non-thesis option.

Doctor of Philosophy

Admission—See page 9.

The Graduate Record Examination is recommended. In general, overall grade point averages of B (3.00) in the last two years of undergraduate work and a B+ (3.50) in previous graduate work are required.

Course Requirements

Minimum of 72 hours of approved graduate work is required, including 19.799 Doctoral Dissertation Seminar (up to 24 hours). Students entering the Ph.D. program with M.A. degrees earned elsewhere must complete 30 hours of graduate work in residence plus 12 hours of disserta-

tion credit. Students are not required to take any specific courses or to complete any specified number of formal courses.

Advisors

(1) There will be a general advisor for all incoming Ph.D. students. Each student, in collaboration with the general Ph.D. advisor, will choose an advisor during the course of his first year's work in the program. His advisor will have primary responsibility for the student's program.

(2) The student can change advisors whenever he changes field of interest or wishes to change, providing he can find a faculty member willing to accept him. To remain in the Ph.D. program the student must maintain the minimum standard required by the University and must retain the sponsorship of an advisor.

(3) At the end of each academic year, the advisor, in consultation with other faculty members, will enter in the department files a written evaluation of the student's academic progress. Any other interested faculty member may also submit an evaluation. Students changing advisors near evaluation time will receive evaluations from both faculty members. A copy of each evaluation will be shown to the student in person by the advisor, then a copy will be entered in the student's file and a copy mailed to the student. These evaluations are confidential and are for use only by the staff and faculty of the Department of Economics. They are not to be used as a form of recommendation and cannot be used outside the department without the faculty member's expressed approval.

Tool of Research

The tool of research requirement may be fulfilled by completing the following courses with an average grade of B or better:

19.521 Mathematical Economic Analysis

19.522 Econometrics I

19.523 Econometrics II or some other tool which may aid the graduate student in further research into economic problems (e.g. in a language or an alternative research methodology such as the philosophy of science or the philosophy of history).

As an alternative, the student may fulfill the tool of research requirement by passing an exam administered by the Department of Economics.

Independent Research

The Ph.D. student, in order to further familiarize himself with research techniques and methods and the practical problems involved in research, will be required to have at least 6 hours of individual research. The individual research project would require the willingness of a faculty member to approve the proposed research and to serve as advisor to the student who wishes to pursue some research in which he is interested (but which may be peripheral to his course work).

Comprehensive Examinations

(1) An oral examination will be required before 24 hours of course work is completed. This exam will be on general economics and will be used as both a screening and an advising device.

(2) Five comprehensive exams will be required:

a) Two written exams: one in Price Theory and Its History and one in Income Theory and Its History.

b) Three exams (written or oral at the student's option) in elective fields (one of which may be outside the Economics Department).

The comprehensive exams must be taken within one year of completion of residence requirements. The student has the option of taking all five exams at one comprehensive examination period, or he may choose to split up his comprehensive schedule by taking the theory comprehensives during one examination period and the History of Economic Development and the two elective comprehensives during the next examination period the following semester.

(3) An oral examination will also be required on the Ph.D. dissertation.

Graduate Comprehensive Examination Fields

19.01A Contemporary Economic Theory: General (required of M.A. students)

19.01B Contemporary Economic Theory: Price (required of Ph.D. students)

19.01C Contemporary Economic Theory: Income (required of Ph.D. students)

19.002 History of Economic Thought

19.003 Economic History of Europe

19.004 Economic History of the United States

- 19.005 History of Economic Development
- 19.006 Theory of Political Economy
- 19.007 Economic Growth and Development
- 19.07A Economic Development Policy (not open to students in Department of Economics)
- 19.008 Manpower Economics and Human Resources
- 19.009 International Economics
- 19.09A International Economic Policy (not open to students in Department of Economics)
- 19.011 Comparative Economic Systems and Soviet-type Economies
- 19.013 Monetary Economics
- 19.014 Public Finance and Fiscal Policy
- 19.015 Urban Economics
- 19.016 Mathematical Economics
- 19.017 Econometrics
- 19.018 Quantitative Methods in Economics (open only to M.A. candidates)

Dissertation

The student obtains approval for his dissertation topic from an interested faculty member in the field of the dissertation, who becomes chairman of the dissertation committee. This committee, especially the chairman, supervises the preparation of the dissertation and reviews it upon completion. An oral examination on the dissertation is given after the complete dissertation is submitted.

Honors

The Simon Naidel prize of \$50 is awarded annually to the graduate student in economics who has written the most outstanding comprehensive examination, as judged by the faculty of the Department of Economics.

The Frank Tamagna prize of \$100 is awarded annually to an outstanding graduate or undergraduate student in monetary economics as judged by those professors teaching monetary economics.

The Fritz Karl Mann Fund is a loan fund for graduate or undergraduate students in economics. The loan fund is administered by the chairman of the department.

Education

Correspondence Directory: Donald R. Thomas, *Chairman*

Fields of Study

Undergraduate: Elementary, early childhood, and secondary education

Graduate: Educational administration and supervision, special education, counseling education (M.A. and Ph.D. level), and higher education (Ph.D. level)

Full-time Faculty

Professor: Chalmer A. Gross, Edith H. Grotberg, Bernard A. Hodinko, Paul D. Leedy, Nicholas J. Long, Ralph Whitfield, Sterling D. Whitley

Associate Professor: Robert J. Chinnis, Frañz E. Huber, Dennis D. Miller, Thomas J. Landers, Mary Montebello

Assistant Professor: Craig E. Messersmith, David L. Sansbury, John Abernathy Smith

Undergraduate Degree

Bachelor of Arts

Admission to the Major

Students must meet the University admission requirements.

In addition, students must meet the standards required by the Department of Education. *The American University does not automatically admit one to a program in teacher education.*

Continuous Selection Criteria

1. Anyone desiring admission must enroll in the first of a sequence of professional education courses, 21.300 Foundations of Education. Enrollment in 21.300 precedes formal application to a teacher education program. Elementary and early childhood education majors normally enroll in 21.300 during the sophomore year, while those planning to teach in the secondary schools must enroll in 21.300 not later than the fall semester of the junior year. A grade point average of 2.30, and 57.200 or 57.210 are prerequisites to enrollment in 21.300 Foundations of Education.

2. Prior to enrollment in either 21.350 Elementary and Early Childhood Methods or 21.340 Secondary Education Methods, the student submits his application for Admission to a Teacher Education Program to the department. Application forms are available at the Department of Education. Admission requirements at this stage consist of:

- a. Cumulative grade point average of 2.50 or better
- b. Recommendation by 21.300 instructor
- c. For secondary students, recommendation by his/her academic advisor

3. To remain in a teacher education program, a student must maintain a cumulative grade point average of 2.50 or better.

Changes are anticipated in the *undergraduate* programs; the programs and courses described below are as of January 1972. See Department of Education literature for changes.

ELEMENTARY AND EARLY CHILDHOOD EDUCATION PROGRAMS

Dennis D. Miller, Director of Elementary Programs

Joel Balsham, Director of Field Experiences

The following program is required for elementary and early childhood education majors in order to meet most state certification requirements. Even though the professional education aspects of the program have been carefully designed, graduation does not assure one a position as a fully certified teacher. The American University does *not* license one to teach in any given state; such certificates are issued only by a state governmental agency.

The student is responsible for selecting courses which will enable her/him to obtain a certificate in the state of her/his choice. Certification requirements should be examined no later than the beginning of the student's sophomore year. The elementary education program is approved by the National Council for Accreditation of Teacher Education (NCATE). States recognizing such accreditation guarantee certification to graduates of NCATE approved programs even though the graduate may not meet all specific state requirements. Consult departmental advisor regarding certification matters.

University Requirements—See page 25.

Language Requirement—See page 48.

Departmental Requirements

DISTRIBUTION

Humanities Electives

Any three (3) course units in the humanities must be taken. These may be chosen from literature, art, music, philosophy, religion, and speech.

Natural Sciences and/or Mathematics Electives

Three (3) course units in the natural sciences and/or mathematics must be taken. 15.160 and 15.161 are required.

Social Sciences Electives

Any three (3) course units in the social sciences must be taken. These may be chosen from anthropology, economics, history, government, international studies, psychology, and sociology.

Elective Field for Academic Concentration

An academic concentration (other than education courses) of at least six courses is required. Courses in this area may overlap with any one of the above humanities, natural sciences and/or mathematics, or social sciences depending on one's academic concentration. The six courses may be taken in any one department or school (such as six units of economics or six units of sociology) or interdisciplinary combinations such as six course units distributed in the behavioral sciences,

the humanities, the natural sciences/mathematics concentration, and others may be arranged to satisfy specific certification needs.

PROFESSIONAL CORE

Students majoring in elementary and early childhood education are required to complete the following courses:

(1) 21.300 Foundations of Education: Social and Historical Bases; Philosophical and Psychological Principles. As part of this course, enrollees are required to participate in a student aide experience (all day) once a week in an elementary school situation *in addition* to their regular class meetings. *Prerequisites:* Psychology .200 or .210 and a grade point average of 2.30.

(2) 21.350 Methods and Materials in Elementary and Early Childhood Education: General and Special: Reading, Language Arts, Social Studies, Mathematics, and Natural Sciences. Students spend time in elementary school field experiences at least two days per week in addition to regular class meetings. *Prerequisites:* Psychology .200 or .210 and a grade point average of 2.50, and admission to a program in teacher education.

(3) 21.444 Student Teaching: Elementary and Early Childhood: Grades K through sixth. Fifteen weeks of full-time observation, participation and actual teaching are required.

Note: Persons with a bachelor's degree may arrange to enroll on a half-course basis to meet state certification.

Professional Related Courses

Students are required to complete *any three* (3) of the following courses:

- 5.380 Teaching Art in Elementary Schools
- 21.250 Mathematics for Elementary School Teachers
- 21.345 Children's Literature
- 21.427 Inner City Education
- 21.581 Physical Science for Elementary School Teachers
- 21.582 Biological Science for Elementary School Teachers
- 43.353 Music for Elementary School Teachers
- 43.361 Vocal Music in Elementary Schools
- 49.310 Elementary School Rhythmic Activities
- 49.330 Health and Safety
- 49.335 Elementary School Games

Electives

To complete a minimum of 32 courses.

Transportation to Schools

For both elementary and secondary programs, it is the responsibility of each student to provide transportation to his student aide, methods, and student teaching assignments. Individual requests for specific school assignments *cannot* be honored.

SECONDARY EDUCATION PROGRAMS

Chalmer A. Gross, Director of Secondary Programs
Joel Balsham, Director of Field Experiences

Major

Undergraduate students planning to teach in secondary schools *must major in the field in which they plan to teach*. In addition they must complete the following courses in professional education:

a. 21.300 Foundations of Education: Social and Historical Bases; Philosophical and Psychological Principles. Students will be required to participate in a 3-hour block of student aide field experience per week in a secondary school *in addition* to regular class meetings. *Prerequisites:* Psychology .200 or .210 and a grade point average of 2.30 or better. Students must enroll in 21.300 not later than the fall semester of the junior year.

b. 21.340 Methods and Materials in Secondary Education: General and Special: English, Foreign Languages, Mathematics, Natural Sciences, and Social Studies. Methods courses in music, art, and physical education are offered in the respective departments. The course is taken concurrently with 21.445 Student Teaching. *Prerequisite:* 21.300 Foundations of Education and admission to a program in teacher education.

c. 21.445 Student Teaching: Secondary Schools. Grades 7 through 12. Nine to fifteen weeks of full-time observation, participation and teaching are required. To be taken concurrently with 21.340.

d. Any other courses required for teaching certification in the state in which the student plans to teach.

Transportation to Schools

For both elementary and secondary programs, it is the responsibility of each student to provide transportation to his student aide, methods, and student teaching assignments. Individual requests for specific school assignments *cannot* be honored.

Graduate Degrees

Candidates for graduate degrees are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Graduate requirements are constantly being refined to improve the excellence of the graduate programs of the department. Therefore, students should consult departmental office for the latest information. The student *must assume all responsibility for meeting deadlines* as announced in the University calendar and must be conversant with all graduate regulations pertaining to his particular degree.

Master's Degrees

A student entering the Department of Education with a Bachelor's degree has the option of one of three Master's degree programs: (A) a Master of Arts in Education with a major in a field outside of the Department of Education, (B) a Master of Education with a major in one of the specialty fields in the Department of Education, or (C) a generalist Master of Education degree with no specialty.

Program A is designed for teachers of an academic subject who want to strengthen their background in their subject-matter area in addition to obtaining greater competency in their professional educational activities, and for those persons who prefer to emphasize the academic or research aspects of their educational discipline.

Program B is designed for those persons who wish to concentrate within one professional specialty in education.

Program C is designed for those persons who wish a broad background covering several areas of education. Students in this program are allowed to select courses from several specialty fields and supporting areas but are specifically discouraged from enrollment in the advanced, professional courses within specialty fields.

MASTER OF EDUCATION

Candidates for graduate degrees are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Admission Requirements

All candidates must have had an overall undergraduate point standing of 2.75 (on a 4.0 scale) based on the last 60 semester hours of work, and a 3.0 or better in education or major field of specialization, and a satisfactory score on the *Graduate Record Aptitude Examination* or the *Miller Analogies Test*. Additional admission requirements may be imposed by the specialty fields.

A student who seeks the Master of Education degree must in most cases be able to meet the requirements for a teacher's certificate in some state in elementary or secondary education *unless* enrolling in a program preparing for positions in higher education. Certification requirements universally require student teaching (or successful teaching experience) or an internship such as 21.659, 21.769, or 21.792.

Students will be admitted to Master's degree programs three times a year with the suggested deadline for applications being May 1 for fall semester, November 1 for spring semester, and March 1 for summer semester. Students are encouraged to apply for admission for the fall semester.

A student may be admitted to a Master's degree program only after all prerequisites are met.

Course Requirements

The minimum course requirement for the Master's degree is thirty semester hours; some programs, however, will require additional hours. All candidates must take Educational Research (21.790) and one of the following:

- 21.791 Research Seminar in Education (required of generalist M.Ed. Candidates)
- 21.659 Practicum in Counseling
- 21.769 Internship in Student Personnel Services in Higher Education
- 21.792 In-Service Training Project: Internship in Education

Written Comprehensive Examinations

For a Master of Education degree in a specialty field, one written comprehensive examination in the field of specialization is required. For a generalist Master of Education degree, the written comprehensive examination must be the General Education Examination.

Comprehensive Examination Fields

See listing under *Master of Arts*.

MASTER OF ARTS

See page 26 regarding minimum standards for admission and University Graduate Degree Requirements.

Admission Requirements

Same as for Master of Education degree.

Course Requirements

In no case will a program for a Master of Arts degree require less than thirty semester hours of credit, twelve of which may be taken in a department other than the Department of Education. All candidates must take Educational Research (21.790) and Master's Thesis Seminar (21.797).

Written Comprehensive Examinations

Two written comprehensive examinations are required: one in a core field of Education and one in a field outside of Education.

Other Requirements

An acceptable thesis and oral defense of the thesis.

Comprehensive Examination Fields for Master of Education and Master of Arts Degrees

1. *Core Fields* (for students in Program A)
 - a. 21.001 History and Philosophy of Education
 - b. 21.002 Psychology of Education
2. *Specialty Fields* (for students in Program B)
 - a. 21.003 Educational Administration and Supervision
 - a. 21.004a Special Education: Learning Disabilities
 - c. 21.004b Special Education: Emotionally Disturbed
 - d. 21.004c Special Education: Reading Education
 - e. 21.005 Counselor Education
 - f. 21.006 Student Personnel Services in Higher Education
 - g. 21.008 Science Education
 - h. 49.001 Physical Education
3. *General Examination* (for students in Program C)
 - a. 21.007 General Education

MASTER OF EDUCATION DEGREE PROGRAM FOR TRAINING TEACHERS OF EMOTIONALLY DISTURBED CHILDREN

Beginning July 1969, the U. S. Office of Education Bureau of Handicapped Children funded an experimental program designed to train graduate students with no former undergraduate education background to teach emotionally disturbed children.

A unique characteristic of this 12-month program is that the trainee spends a summer session on The American University campus taking courses from the Department of Education, with the following 9 months at the Hillcrest Children's Center, Washington, D. C., in an intense fifty-hour week intern-seminar program. Upon completion of this program the graduates are awarded a Master of Education Degree in Special Education, and meet certification requirements to teach emotionally disturbed children. Fellowships are available. For further information write: Dr. Nicholas J. Long, Director, Hillcrest-American University Program, Hillcrest Children's Center, 1325 W Street, N.W., Washington, D. C. 20009.

INTER-DEPARTMENTAL PROGRAM: MSST AND MST PROGRAMS

For information about the Master of Science in Science Teaching (MSST) program, see page 83.

For information about the Master of Science in Teaching (MST) program, see the description of the offerings in the College of Continuing Education.

Doctoral Degrees

The Department of Education offers two degrees in education at the doctoral level: the Doctor of Education and the Doctor of Philosophy in Education. Each of these degrees has its own discreet orientation and addresses itself to the singular needs of the student. The Doctor of Education is appropriate for professional educators: teachers at all educational levels, administrative and supervisory personnel, and all others who are engaged primarily in activities of a purely educative nature. The Doctor of Philosophy in Education is structured for those whose professional orientation to education is not so closely related to classroom activity but rather to research applications of education, or structured for those who may wish to relate education to a particular subject area or academic field.

Qualitatively and quantitatively the degrees are coequal. Their differences lie only in the need to structure each degree program to the professional objective of the student.

The privilege that is granted the student to pursue the discipline for the doctorate presumes that the ability of the student is equal to the rigorous demands of the doctoral program. This ability is evidenced by competence to pass appropriate comprehensive examinations which are addressed to the student's knowledge of his field, and his ability to carry out independent study and research in a depth relative to that field. No amount of course work by itself will satisfy the total requirements for the doctorate.

Areas of Study

The Department of Education accepts candidates for the degrees of Doctor of Education and Doctor of Philosophy in Education in the following areas of major study:

Higher Education, in preparation for professional positions in student personnel services.

Special Education, in preparation for professional positions as classroom teachers with a specialty in reading; special teachers of reading, reading clinicians, reading consultants, reading supervisors; specialists in reading problems of the inner city, in the unique problems of teaching reading to the exceptional child, in the reading problems associated with the college and adult level; specialists in learning disabilities; specialists in teaching emotionally disturbed children.

Counselor Education, in preparation for professional positions as counselors, directors of counseling, and research specialists in counseling.

Educational Administration and Supervision, in preparation for professional positions as school superintendents, elementary and secondary principals, supervisors, and teachers of educational administration.

In addition to study in the above areas, each student is expected to develop competence in complementary areas which are listed under the heading of comprehensive examinations.

Prerequisites

A Bachelor's degree or equivalent, and in most cases, a Master's degree from an accredited institution. The student must also have achieved a satisfactory score on the *Graduate Record*

Aptitude Examination or the *Miller Analogies Test*, and have attained a grade point index satisfactory to the Department of Education: 3.50 in his former graduate work and 2.75 in undergraduate work on a four-point scale. The student is advised to consult his proposed major advisor for other specific prerequisites. All prerequisites must be completed before admission to the program.

Course Requirements

No amount of course work by itself will earn the doctorate, but a minimum of 72 hours of graduate credit is required of all candidates. These credits must be distributed in two categories: course credit and dissertation seminar credit. Normally, 60 to 66 hours must be presented in course credits, including 21.790 or equivalent. At least 12 hours must be in dissertation seminar credits. Specific courses may be required in each of the doctoral programs. See Graduate Degree Requirements under General Academic Regulations. In addition, consult the *Guide to Doctoral Degree Programs in Education* and the appropriate program advisor.

Qualifying Examination and Advancement to Candidacy Requirement

A doctoral student shall be advanced to candidacy after presentation of a plan of study to the faculty associated with his major field of study and passage of a qualifying examination assessing his potential for doctoral study in his major field. Such examination shall occur after completion of 9 hours of graduate study, at least three of which shall be in the candidate's major field of study, except that the candidate obtaining the grade of distinction in the comprehensive examination in his same major field at the Master's level at The American University may be advanced to candidacy upon review of his plan of doctoral study by the faculty associated with his major field of study. In this case the Master's comprehensive shall constitute the qualifying examination until the student has accumulated a total of 24 graduate hours.

Comprehensive Examination Requirements

Four comprehensive examinations are required, including two in the candidate's major field of study, one of which shall be an oral examination, and two in complementary fields of study.

Comprehensive examinations currently offered doctoral candidates are the following:

- 21.021A Philosophy of Education
- 21.021B History of Education
- 21.022 Psychology of Education
- 21.023A Educational Administration and Supervision: General
- 21.023B Educational Administration and Supervision: Special
- 21.024A Special Education: Learning Disabilities
- 21.024B Special Education: Reading
- 21.025A Counseling Theory and Research
- 21.025B Counseling in Education
- 21.026 Student Personnel Services in Higher Education
- 21.028 Curriculum Development and Instruction
- 21.030 Educational Research
- 21.031 Higher Education

Candidates for the degree of Doctor of Philosophy in Education *must* take one comprehensive examination outside the Department of Education, normally from among those academic areas which are commonly known as the liberal arts or from another professional field. The student's anticipated occupation must support such an elective as being reasonable and both the Department of Education and the outside department or school must approve the choice. Candidates for the degree of Doctor of Education *may* elect to be examined in a field outside of the department. Candidates must make the necessary arrangements, including course requirements with the department or school in which they will be taking the examination outside the Department of Education. The Department of Education will not assume responsibility for making such arrangements.

Tools of Research Requirements

Proficiency must be demonstrated by all doctoral degree candidates in two tools of research.

Doctor of Philosophy degree candidates must demonstrate proficiency in one foreign language or computer science.

Languages: Tool examinations are given in French, Spanish, German, or another foreign language by special permission of the Department of Education and the Department of Language and Foreign Studies.

Quantitative: The tool examination in *Educational and Psychological Measurement and Evalu-*

ation is administered by the Department of Education on: (1) the Saturday following the first full week of classes in the spring semester and (2) the first Saturday in June. This tool may be satisfied by successful completion, with a grade of B or better, in course 21.522 Evaluation of Student Progress. The tool examination in *Statistics* is administered by the Department of Education or may be satisfied by successful completion, with a grade of B or better, in course 21.625 Educational Statistics II.

Residence Requirement

The year in residence, required of all doctoral students in education, may be satisfied by two consecutive sessions of full-time graduate work at The American University in any one of the following combinations:

A fall semester (9-12 hours) and a spring semester (9-12 hours) of one academic year.

A spring semester (9-12 hours) of one academic year and a fall semester (9-12 hours) of the next academic year.

A summer session (9 hours) and the following fall semester (9-12 hours).

A spring semester (9-12 hours) and the following summer session (9 hours).

Dissertation Requirement

Each candidate must present a satisfactorily written dissertation and pass, satisfactorily, an oral defense of the dissertation.

History

Correspondence Directory: David J. Brandenburg, *Chairman*

Fields of Study

American history, European history, history of the British Isles and the Empire, Latin American history, Asian history, archives administration.

Full-time Faculty

Professor: Carl G. Anthon, Robert L. Beisner, David J. Brandenburg, Roger H. Brown, Harold E. Davis (University Professor), Dorothy D. Gondos, Jean T. Joughin, Ernst Posner (Professor Emeritus)

Associate Professor: Thomas V. DiBacco, Elizabeth Eisenstein, Ira N. Klein, Charles C. McLaughlin, Alison G. Olson, Milton Osborne

Assistant Professor: Ellen Gumperz, Terence R. Murphy, Albro Martin

Undergraduate Degree

Bachelor of Arts

Admission to the Major

The student may make major application any time after his first semester at The American University provided he has a 2.00 cumulative academic average.

Composition and Reading Requirement—See page 25.

Language Requirement—See page 48.

Major Courses

a) 29.201, 29.202, 29.203, or 29.904

b) 29.401 Historiography

c) 29.491 Senior Seminar

d) Other Courses—A total of seven selected from the .100 through .500 level offerings.

Related Courses

Four courses, other than history, .300 level or above (from the humanities, social sciences and/or natural sciences) selected in consultation with a departmental advisor.

Departmental Honors

To be eligible for the honors program a student must have completed at least 16 courses of work with a minimum cumulative index of 3.00 and at least 5 courses in history completed with a minimum cumulative of 3.20. The student must be recommended by the department faculty for selection and approved by the chairman of the department. The student's interests and capabilities and the willingness of an instructor to undertake the supervision will influence the nature of the project chosen.

Normally, the potential honors student will first register for a reading project (29.498); if successful, he will be encouraged to undertake a research project (29.499). Departmental honors will usually be assigned only on the basis of completion of both the reading and research project with the grades of "A." On recommendation, the honor student may substitute his 29.499 for the Senior Seminar, but must take Historiography.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts

Admission

See page 9.

Admission to a graduate program is at the discretion of a departmental committee within the frame of reference of University and College of Arts and Sciences standards. In general, a better than 3.00 index in the undergraduate major and 2.75 overall index on a four-point basis is required.

Other admissions requirements: evidence of a substantial beginning in at least one foreign language; the Graduate Record Examination; and two letters of recommendation from recent professors.

Full-time students must be prepared to finish the degree in one calendar year from time of entry (course registration) into the program.

Admission to the M.A. program does not insure admission to the Ph.D. program. In general, admission, especially for full-time students, is for the fall semester. Entry into a graduate program in February, while possible in some cases, will cause scheduling and timetable difficulties.

A graduate degree in history cannot be achieved in summer sessions alone.

Provisional admission may be extended in certain cases where the above standards are not fully met. In order to gain full admission status, the student admitted provisionally must demonstrate to the satisfaction of the department an ability to pursue a degree program with reasonable promise of success. Upon completion of 12 credit hours of courses taken for letter-grade credit, he must then apply for full admission.

Course Requirements

Minimum of 30 hours of approved graduate course work distributed as follows:

(1) Two research seminars (6 hours) and two colloquia, if available, or suitable substitute (6 hours), all taken for letter-grade credit;

(2) Six other courses (18 hours) as directed by the student's advisor. In the Department of History, some of these six courses may on recommendation of the advisor be taken for "Pass" credit. Part-time students shall take a minimum of 12 hours of these 18 hours for letter-grade credit. Courses taken outside the department shall be for letter-grade credit.

Comprehensive Examinations

One six-hour written comprehensive examination in one of the following general fields:

History of Modern Western Europe (since the 15th century)

U.S. History (including colonial)

Russian and Eastern European History

Latin American History

History of the British Isles and the Empire

In case of failure, a re-examination is subject to the discretion of the department.

Comprehensive examinations are given in September and May.

Other Requirements

Language: an intermediate knowledge of German, Russian, French or Spanish.

Two substantial research papers on the .600-.700 level normally written in research seminars, or a Master's thesis.

A minimum cumulative grade average of B (3.00).

Timetable

Full-time students should complete all requirements for the M.A. in one calendar year. Part-time students should complete all requirements for the M.A. within three calendar years after entering the program.

All candidates for the M.A. will satisfy the foreign language requirement as early in their graduate careers as possible. The department will not permit a candidate to take his comprehensive examination until the language requirement has been met except in a case of extreme hardship.

Doctor of Philosophy

Admission

See page 9.

Admission to the Ph.D. program is at the discretion of a departmental committee and is contingent upon the student's having an M.A. degree or its equivalent in history or in a related field (such as political science, economics, anthropology, sociology, literature, art, etc.), with strength shown in history either on the undergraduate or graduate level. Holding an M.A. degree does not insure admission to the Ph.D. program.

Full-time Ph.D. students must be prepared to complete all course, language, and comprehensive examination requirements by the end of the second academic year after entry into the Ph.D. program. In general, admission is for the fall semester, especially for full-time students. Entry into a graduate program in February, though possible in some cases, will cause scheduling and timetable difficulties.

A Ph.D. in history cannot be achieved in summer sessions alone.

Provisional admission may be extended in certain cases where the above standards for admission are not fully met. (See description of provisional admission above in section on Master's program.)

Course Requirements

A minimum of 42 hours of approved course work beyond the M.A. is required. At least 30 of the 42 hours must be completed in residence at The American University. Course work, over and above the 30 hours taken for the M.A., shall include, but is not limited to, the following:

- (1) Two research seminars and one colloquium (or their equivalent substitutes), to be taken for letter-grade credit;
- (2) Seven other courses selected by the student and his advisor, taken for "Pass" credit or for letter-grade credit, according to departmental advice;
- (3) 12 hours of dissertation seminar

Courses taken outside of the Department of History shall be for letter-grade credit. Part-time students shall take a minimum of 24 of the 42 hours required for letter-grade credit.

Comprehensive Examinations

Four examinations, which may include the M.A. examination taken at The American University on recommendation of the department. The four examination fields are as follows:

- (1) The general examination field;
- (2) A specialized field in history outside the geographical area of the "general" field;
- (3) A related field outside history, or a specialized field in history;
- (4) Another specialized field—the major field—in history, within the area of the general field and within which field the student will write his dissertation. This field will be tested by oral examination.

Comprehensive fields will be chosen from the standard list printed below. In particular cases, a candidate may present a field, in area 4 above, specially defined in terms of his research interests.

In case of failure, re-examination is subject to the discretion of the department. Comprehensive examinations are given in September and May.

Other Requirements

All candidates for the Ph.D. in History must satisfy two tool of research requirements. Normally these will be two foreign languages (usually German, Russian, French or Spanish), at least one of which must be met by passing a tool of research examination. The second language requirement may be met through a recent background experience (normally no more than five years preceding date of admission) in the language, consisting of, or equivalent to, an intermediate-level (second year) college language course. When deemed appropriate and approved by the student's advisor and the departmental graduate committee, a student may substitute quantitative techniques or statistics for the second language requirement. The Graduate Committee will stipulate the mode of meeting this requirement.

All candidates for the Ph.D. will be expected to satisfy their tool of research requirements before taking comprehensive examinations in their specialized fields (fields 2, 3, and 4).

A dissertation and oral defense of the writing. The minimum cumulative grade average required to maintain good standing in the Ph.D. program is B.

Timetable

Full-time students should finish all requirements for the Ph.D. within three calendar years after entering the Ph.D. program, or four years after beginning graduate work. Part-time students should complete all requirements within five calendar years after entering the Ph.D. program. All graduate students must be registered continuously, except for summer. (See Maintaining Matriculation.)

Comprehensive Examination Fields

General Fields

- 29.001 History of Modern Western Europe
- 29.002 History of the United States (including colonial period)
- 29.003 History of Latin America
- 29.004 History of Russia and Eastern Europe
- 29.005 History of the British Isles and the Empire

Specialized Fields

- 29.010 History of Germany
- 29.011 History of France
- *29.012 History of the Renaissance and Reformation to 1609
- 29.013 History of Early Modern Europe, 1609-1763
- 29.014 History of the French Revolution and Napoleon, 1763-1814
- 29.015 History of Europe, 1815-1914
- 29.016 History of Europe since 1914
- 29.017 European Diplomatic History
- 29.018 European Intellectual History
- 29.020 The U.S. Colonial Period, Revolution and Constitution
- 29.021 The Middle Period in U.S. History, 1789-1877
- 29.022 Recent U.S. History since 1877
- 29.023 U.S. Diplomatic History
- 29.024 U.S. Intellectual History
- 29.025 U.S. Economic History
- 29.030 The Colonial Origins of Latin America and the Achievement of Independence
- 29.031 Latin America since 1850
- 29.032 Latin American Diplomatic History
- 29.033 Latin American Intellectual History
- 29.040 History of Russia prior to Peter the Great
- 29.041 History of Imperial Russia, 1700-1917
- 29.042 History of the Soviet Union, 1917 to the Present
- 29.044 Russian Intellectual History since 1700
- 29.050 History of the British Isles to 1485
- 29.051 History of the British Isles, 1485-1688
- 29.052 History of the British Isles, 1688-1815
- 29.053 History of the British Isles since 1815
- 29.054 History of the British Empire and Commonwealth
- *29.060 History of the Middle East
- *29.061 History of China

- *29.062 History of Japan
- 29.063 History of South Asia
- 29.064 History of Southeast Asia
- 29.070 History and Administration of Archives

*Note: Available for purposes of specialization (fields 2 and 3) but not for dissertation purposes.

Inter-Departmental Science

Correspondence Directory: Leo Schubert, *Coordinator* (Department of Chemistry), Faculties of the Departments of Biology, Chemistry, Mathematics, Physics and Psychology

Fields of Study

Biology, chemistry, mathematics, physics, psychology

Undergraduate Degrees

Bachelor of Science in Distributed Science

Admission to the Major

The University offers a program leading to the Bachelor of Science degree with a major in distributed sciences for students who have been admitted to the College of Arts and Sciences and wish to receive a broader background in science at the undergraduate level than is afforded by the usual Bachelor of Science degree. The degree is planned to meet pre-medical and pre-dental requirements of medical and dental schools as well as the subject content requirements for the secondary school teaching certificate.

Students majoring in distributed sciences may select their major courses primarily from offerings in the fields of biology, chemistry, mathematics, physics, and psychology. Students interested in a program in distributed sciences should consult the chairman of the science department in which they select to complete the largest number of courses. The chairman of the department will assign an advisor early in the program. A minimum of seventeen courses in the combined science/mathematics major and related courses must be completed to qualify for the degree. If psychology is selected for this program, the courses must be experimental or natural-science related; approval must be obtained from the Psychology Department advisor.

Composition and Reading Requirement—See page 25.

Language Requirement—See page 48.

Departmental Requirements

Major Courses

- (1) Six courses in one science
- (2) Three courses in a second science
- (3) Two courses in a third science
- (4) Two courses in a fourth science
- (5) Two additional courses in *either* (1) or (2) above

Related Courses

Two courses (one each) selected from anthropology, economics, psychology; and "Logic and the Scientific Method" (philosophy).

Tool Courses

- 41.101 Elements of Calculus
- 41.260 Introduction to Computing. Strongly recommended. (Students selecting mathematics as one of the major courses should consult the Department of Mathematics for exceptions to these tool courses.)

Electives

To complete a minimum of 32 courses.

MEDICAL TECHNOLOGY

Correspondence Directory: William C. Banta, Coordinator of the Medical Technology Program, Department of Biology

Undergraduate Degree

Bachelor of Science in Medical Technology

Admission to the Major

Any student who has been admitted to the College of Arts and Sciences may apply for admission.

Composition and Reading Requirement—see page 25.

Language Requirement—see page 48.

Required Courses

Chemistry

15.120	General Chemistry I	1
15.121	General Chemistry Lab I	1/4
15.130	General Chemistry II	1
15.131	General Chemistry Lab II	1/4
15.310	Organic Chemistry I	1
15.311	Organic Chemistry I Lab	1/2
	1-1/2 additional chemistry courses chosen from the list of strongly recommended courses below	1-1/2
TOTAL CHEMISTRY		5-1/2

Biology

9.101	General Biology I	1
9.250	Cell Biology	1
9.335	Vertebrate Physiology	1
9.356	Genetics	1
9.360	Blood Banking	1-1/4
9.361	Clinical Parasitology	1/2
9.362	Immunology and Serology	1/4
9.363	Urinalysis and Clinical Microscopy	1/4
9.364	Hematology	1-1/2
9.365	Laboratory Management and Basic Statistics	1/4
9.366	Clinical Chemistry	1-3/4
9.367	Clinical Microbiology and Mycology	1-3/4
9.368	Coagulation	1/4
9.369	Clinical Pathology	1/4
	One additional course in Biology chosen from the list of strongly recommended courses	1
TOTAL BIOLOGY		13

Mathematics

One semester college level mathematics	1
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Electives

To complete a minimum of 32 courses	32
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Strongly Recommended Electives

15.320	Organic Chemistry II	1
15.321	Organic Chemistry Lab II	1/2
15.350	Quantitative Analysis	1
15.351	Quantitative Analysis Lab	1
51.110	The Basic Ideas of Physics	1
9.102	General Biology II	1
9.340	Microbiology	1
9.357	Genetics Laboratory	1/2

Clinical Laboratory Science courses, 9.360-9.369, are taken by students admitted to the Medical Technology Training Program at the Oscar B. Hunter Memorial Laboratory, 915 Nineteenth Street, N.W., Washington, D.C., in the senior year. Students should apply for admission only after completion of 24 courses, including all required courses (except 9.360). Students admitted must have attained a grade of at least "C" in each required course, although, in some cases, students with less than "C" in some required courses are admitted to the program on probation for three months. Those admitted to the program may apply for scholarship funds.

RADIOLOGIC TECHNOLOGY

Correspondence Directory: William C. Banta, Coordinator of the Radiologic Technology Program, Department of Biology

Undergraduate Degree

Bachelor of Science in Biology, emphasis Radiologic Technology

Admission to the Major

Any student who is eligible for admission to a major in Biology may apply. A student who has attained at least a C average by the end of his first two years of college courses will be admitted to the clinical portion of this program.

Composition and Reading Requirements—See page 25.

Language Requirement—See page 48.

Required Courses*Biology*

9.101	General Biology I	1
9.102	General Biology II	1
9.200	Morphogenesis of the Vertebrates	1
9.201	Morphogenesis of the Vertebrates Lab	1/2
9.330	Human Anatomy and Physiology I	1
9.331	Human Anatomy and Physiology II	1
9.340	Microbiology	1
9.356	Genetics	1
9.490	Independent Project in Biology	1
9.733	Radiation Biology	1

Chemistry

15.120	General Chemistry I	1
15.121	General Chemistry I Lab	1/4
15.130	General Chemistry II	1
15.131	General Chemistry II Lab	1/4
15.350	Quantitative Analysis	1

Mathematics

41.110	Fundamentals of Mathematics	1
41.111	Calculus I	1

Physics

51.220	Introduction to Physics I	1
51.221	Introduction to Physics II	1

Electives

To complete 25 hours. Should include Fundamentals of Education or Business Administration.

The clinical portion of this program is pursued at either:

- a. The Washington Hospital Center, Department of Radiology and/or
- b. The Morris Cafritz Hospital, Department of Radiology. The courses and clinical studies taken at the above institutions are the ones prescribed and approved by The American Registry of Radiologic Technologists. These require a summer period (3 months) following the completion of the sophomore year and also a full year (12 months) following completion of the junior year. Thus, this program covers a minimum of three (3) full years of study on The American University campus and fifteen (15) months in clinical studies.

A list of clinical courses is available from the Biology office.

Graduate Degree
MASTER OF SCIENCE IN SCIENCE TEACHING

The degree of MSST is administered jointly in the College of Arts and Sciences by the Departments of the Sciences, Mathematics, and Education. A student interested in the MSST program should consult Dr. Leo Schubert, coordinator, and also the chairman of the science department in which he plans to take his major. The chairman of that department will assign an advisor.

Persons taking the degree in biology must consult the department chairman well before applying for the comprehensive examination.

Course Requirements

Minimum of 30 hours of approved graduate work with six or more hours taken in the major field. The student's undergraduate and graduate courses in the major field must total a minimum of 32 credit hours.

Other Requirements

- (a) A minimum of eight hours in a second science field.
- (b) One year of college mathematics (algebra and analytic geometry or equivalent) taken either before entering the MSST program or as non-credit courses along with the courses taken for graduate credit.
- (c) A course in either history or philosophy of science (3).
- (d) Six hours of graduate courses in education.

A limited number of courses (12 credits) from the .300-.400 level may be used toward the requirements of this degree. These courses may be selected from:

9.250	9.356	41.360	41.474
9.321	41.310	41.412	51.330
9.335	41.321	41.413	51.410
9.340	41.322	41.461	51.450-.451
9.341			

Written Comprehensive Examinations

Two, including one field in natural sciences and one in education.

Language and Foreign Studies

Correspondence Directory: Vadim Medish, *Chairman*

Fields of Study

Concentrations: French studies, German studies, Linguistics, Russian studies, Spanish and Latin American studies; joint area and language programs with the School of International Service, including Latin America, Far East, South and Southeast Asia, and USSR.

Full-time Faculty

Professor: Fernando Belaunde-Terry, Vadim Medish, Hugo J. Mueller, Rafael Supervia

Associate Professor: Edward I. Burkart, Boris Filipoff, Henry M. Noel, Hugo Pineda, Bruno F. Steinbruckner, Kathryn Day Wyatt

Assistant Professor: Madeleine Betts, Vera Z. Borkovec, Marie A. Charbonneau, Jessica W. Goldin, Gisela A. Huberman, Grace S. Mancill, Eleni K. Oktay, Oscar Salazar, Michael Struelens, Monique deJong Ward

Undergraduate Degrees

Bachelor of Arts in French, German, Russian, Spanish

Admission to the Major

Freshmen and transfers are admitted to the department. They must maintain a B grade average in their major and related course work.

Department Requirements

Completion of the elementary and intermediate language levels. Requirements of elementary and intermediate language course work may be waived if high school or other preparation warrants it.

Major Concentration

Eight courses in the appropriate language as follows:

Conversation and Composition I, II, III, IV

Civilization I and II

Pro-Seminar or .500-level literature course

Introduction to Language, or .500-level literature course

Related Field

Six courses in one of the following fields:

1. Interdisciplinary area studies at the .300-level or above, including "Topics" and "Colloquia"

2. A second foreign language

3. Teacher training

Departmental Examination

A comprehensive examination

Composition and Reading—See page 25.

Electives

To complete a minimum of 32 courses.

Bachelor of Arts In Language and Area Studies

(Administered jointly with SIS)

Admission to the Major

Freshmen and transfers are admitted to the Department of Language and Foreign Studies or the School of International Service. They must achieve a B or better cumulative average and determine their language/area before they are formally recognized as majors.

The language-area groups currently are:

- (A) Russian and USSR
- (B) Spanish and Latin America
- (C) French or German and West Europe
- (D) Hindi or Indonesian or Thai or Vietnamese and South and Southeast Asia
- (E) Chinese or Japanese and East Asia

Course Requirements for A, B and C

Prerequisite

Elementary and intermediate language of the area, or the equivalent.

Required Courses

1. Conversation and Composition I & II (of an appropriate language).
2. Civilization I and II (in the appropriate language).
3. Two (2) courses in the history of the area, or one such course and one course in *Introduction to the Area*.
4. Selection of two (2) of the following four-course sequences, which may include appropriate topics courses and/or colloquia taught in the foreign language. (Each sequence must be approved in advance.)

Anthropology: 3.201 plus three additional courses

Economics: 19.100 plus three additional courses

History: four courses in addition to those described in (3) above

International Relations: 33.101, 33.201 plus two additional courses

Political Science: 33.101 plus three additional courses

Literature of Area or Second Foreign Language: four courses

5. Senior Interdisciplinary Area Seminar.

Electives

To complete a minimum of 32 courses.

Course Requirements for Programs D and E

Required Courses

1. Elementary Language (of the area) I & II, Intermediate Language (of the area) I & II.
2. Two (2) courses in the history of the area, or one such course and one course in *Introduction to Developing Areas*.
3. Selection of three (3) of the following three-course sequences. Each sequence must be approved in advance.

Anthropology: 3.201 plus two additional courses

Economics: 19.100 plus two additional courses

International Relations: 33.101, 33.201 plus one additional course

Philosophy and Religion: three courses

Political Science: 33.101 plus two additional courses

4. Senior Interdisciplinary Area Seminar.

Electives

To complete a minimum of 32 courses.

Master of Arts In French, German, Russian, Spanish

Prerequisite

Proficiency in the appropriate language and literature demonstrated either by a B.A. degree in that field of study or equivalent preparation.

Degree Requirements

Minimum of 30 hours of approved graduate work, including:

Main Concentration

At least 12 hours in the appropriate literature courses. A better-than-B average must be maintained within the 12 hours of core courses.

Research Options

(a) Thesis option must include at least one .700-level seminar. The thesis may be expressed as three or six hours of credit. Oral defense of the thesis before an appointed committee.

(b) Non-thesis option must normally include two .700-level seminars. With special permission, one seminar may be replaced by an individual research project.

Related Field

At least 9 hours in one of the following fields:

(a) Teaching of the appropriate foreign language (31.528, 37.507 plus one or more approved courses).

(b) Foreign Culture (Three or more "Colloquia" taught in the appropriate language).

Electives

No more than three hours of electives.

Qualifying Examination

An oral interview before an appointed committee to evaluate the student's preparedness for the written comprehensive examination.

Comprehensive Examination

A written comprehensive examination in the field of core courses.

Fields for Written Comprehensive Examinations

The comprehensive fields listed below are based on core courses and additional courses as required plus additional reading lists:

37.002 French Literature

37.003 German Literature

37.004 Russian Literature

37.005 Spanish and Latin American Literature

Selected courses and seminars with emphasis on particular authors, movements, periods, or literary forms.

Master of Arts in Linguistics**Prerequisite**

B.A. or its equivalent. Proficiency in a modern foreign language equivalent to at least three college years.

Course Requirements

Minimum of 30 hours of approved graduate work, including:

PROGRAM A, WITH THESIS OPTION

- (1) Core courses: At least 15 hours in general linguistics
- (2) Six hours in M.A. Thesis Seminar(s), and oral defense of the thesis
- (3) At least one .700-level seminar
- (4) No more than six hours of electives

PROGRAM B, WITH NON-THESIS OPTION

- (1) Core courses: At least 15 hours in general linguistics
- (2) Six hours in one of the following concentrations:
 - (a) Applied Linguistics
 - (b) Formal Linguistics
 - (c) Philology

- (3) At least two .700-level seminars. With special permission, one seminar may be replaced by an individual research project.
- (4) No more than three hours of electives

Language Requirement

Proficiency in a modern foreign language must be demonstrated in one of the following ways:

- (1) Successful completion of a .500-.700-level course conducted entirely, or in part, in a foreign language.
- (2) Successful completion of an individual research project dealing with a linguistic aspect of an approved language.
- (3) At least one semester of a Teaching Fellowship in a foreign language.

Note: Credit thus earned is applicable toward the student's course requirements. Waiver of the foreign language requirement may be granted to (a) foreign students, and (b) possessors of a B.A. or its equivalent in a foreign language.

Other Requirements

A better-than-B average must be maintained within the 15 hours of core courses.

No more than three hours of electives may be taken in disciplines other than those offered by the Dept. of Language and Foreign Studies.

Qualifying Examination

An oral interview before an appointed committee to evaluate the student's preparedness for the written comprehensive examination.

Comprehensive Examination

A written comprehensive examination in the field of General Linguistics. 37.001 General Linguistics based on 37.500, 37.501, 37.502, 37.503, 37.505, and additional courses as required, plus additional reading lists.

Master of Arts in Language and Area Studies

This degree is administered jointly with the School of International Service. It is the only graduate degree offered by The American University which permits a true area specialization, including intensive training in the language of the area. There is a prerequisite of three years of training in the language of the area. The language-area groups currently authorized under the degree program are as follows:

- A. French or German Language—Western European Area Studies
- B. Russian Language—USSR Area Studies
- C. Spanish Language—Latin American Area Studies

Course Requirements

A minimum of thirty-three (33) hours of approved graduate work is required, including:

Twelve (12) hours in substantive area courses, taught in a language of the area, of which at least six (6) must pertain to the two comprehensive examination fields.

Three (3) hours of an integrated area seminar.

Comprehensive Examination Requirements

Two written comprehensive examinations are required in the area of specialization, one in History or Diplomatic History and International Relations, and the other from among the following fields: Comparative Politics, Economic Development Policy, Comparative Economic Systems, Cultural Anthropology, Philosophy or Literature (by permission).

No specified number of courses is required per comprehensive examination field. However, a field is usually defined for purposes of these examinations, as four courses, one of which is taught in the language of the area and one of which is an advanced course or research seminar.

Research Requirements

All candidates for this degree must write either a thesis, credited with six semester hours of the 33 required for the degree, or two substantial research projects (non-thesis option) prepared in conjunction with .600- and .700-level seminars, or two independent research projects (.690), or an approved combination of these.

Literature

Correspondence Directory: Barry A. Marks, *Chairman*

Field of Study

Literature

Full-time Faculty

Professor: Rudolph von Abele, Merritt C. Batchelder (Emeritus), Charles M. Clark (Graduate Advisor), Pierre Han, Faye Kelly, Barry A. Marks, Jeanne A. Roberts, Louise M. Young (Emeritus)

Associate Professor: Edward L. Kessler, Frances H. King, Charles R. Larson, Mary M. Patton, Henry S. Taylor, Frank Turaj, Shirley Yarnall

Assistant Professor: Umberto J. Balducci, Arthur P. Bean, C. Barry Chabot, J. Ronald Green (Undergraduate Advisor), Kermit W. Moyer, Joan Radner, Bryan Reddick, Roberta Rubenstein, William Stahr (Teacher Education Advisor), Francis Zapatka

Undergraduate Degree

Bachelor of Arts

Admission to the Major

Formal admission to the major requires a 2.00 average and approval of the department.

Composition and Reading Requirements—See page 25.

Language Requirement—See page 48.

Departmental Requirements

Major Courses

Majors will complete 12 courses, excluding 23.100-.101, Composition and Reading. Three must be the two courses 23.120-.121 Studies in Literature and 23.125 Critical Reading. No more than three may be reading lists; no more than six may be topics courses.

Majors, as a minimum requirement, will give sustained attention to *one major work* of literature, to several works of *one major writer*, and to *a literary theory* or *a literary period*. Faculty members will certify the competence of students in each of the three categories.

Related Courses

The department has no "related fields" requirement as such. Students are encouraged to develop an understanding of the subject matter and methods of at least two other University departments and to relate literary study to other disciplines.

Electives

To complete a minimum of 32 courses.

Elementary School Teacher Training

Students majoring in education and selecting literature as an area of concentration should consult the Department of Education about appropriate courses.

Secondary School Teacher Training

The Department of Literature, in cooperation with the Department of Education, offers a curriculum which will lead to certification for teaching English at the high school level. Students who have selected this as their vocational objective should see the teacher education advisor in the Literature Department.

Film Program

A program in film, conducted through the Office of Interdisciplinary Studies, is offered jointly by the Department of Literature and the Department of Communication. (See Professor R. Green, Department of Literature.)

Department Honors

Interested students should consult the undergraduate advisor in literature no later than the middle of the junior year.

Graduate Degrees

Master of Arts

Course Requirements

Minimum of 30 hours distributed as follows:

- (1) One graduate seminar.
- (2) 27 additional hours of graduate seminars, special topics courses, or independent reading or study projects, as approved by the student's advisor. With special permission, up to 6 credit hours may be taken outside the Literature Department, as an integral part of a student's graduate program.

Thesis Option

A two-semester project, involving independent research under faculty direction (3 credit hours) and the writing of a thesis (Master's Thesis, 3 credit hours).

Non-thesis Option

Two substantial research or critical papers written for courses, study projects, or seminars, to be submitted to the Graduate Studies Committee of the department.

Comprehensive Examinations

Two written examinations:

- (1) 23.100 Literary Forms and Ideas
- (2) One of the following specialized fields:
 - 23.200 English Literature (A period or a type of literature)
 - 23.300 American Literature (A period or a type of literature)
 - 23.400 Comparative Literature (A period or a type of literature)
 - 23.500 Literary Theory and Criticism

Other Requirements

A background in one foreign language, consisting of or equivalent to an intermediate-level college language course.

Advancement to candidacy after completion of three courses or seminars or projects for graduate credit, with a minimum grade average of B.

Doctor of Philosophy

The Program for a Ph.D. in Literary Studies at The American University has been designed to provide maximum freedom for students and faculty, and maximum opportunity for individual exploration with tutorial guidance. Specific requirements have been kept to a minimum, and enrollment is limited to ten new students a year.

Specific language requirements and the study of particular "related fields" are not prescribed. Each student, however, will pursue either a literature other than English, or another field pertinent to his literary exploration, such as political science, economics, anthropology or sociology. Students will choose a related field during their first year and will pursue it through courses and/or reading and research during the next two years.

The program is designed to emphasize the spirit of inquiry as well as the acquisition of knowledge. In place of the traditional dissertation a series of three special study projects will be developed and presented, one a year, over the three-year period.

Admission

Graduate Record Examination is recommended. At least two letters of recommendation are required. Whenever possible an interview should be arranged.

General Requirements

An undergraduate degree, either with a major in literature or with substantial course work in literature.

Three years full-time residence at The American University. Special provisions may be made for students who already have an M.A. degree to finish in two years.

Special Projects

Three special study projects which must deal with each of the following aspects of literature: (1) major writer; (2) role of convention; (3) interdisciplinary study.

Seminar Requirements

- (1) Theory of Literary Criticism
 - (2) Theory of Literary History
 - (3) Theory of Literary Form (two semesters)
 - (4) Theory of Literary Ideas (two semesters)
- (Courses in the Nature of Language and Creative Writing may be substituted for 3 or 4.)

Tutorials

Each student will be assigned a tutor with whom to plan reading, research, writing, and teaching. Students will have at least two different tutors in the three year period. Students will keep intellectual journals to maintain a record for the tutor of his reading and thinking.

Teaching

The study and practice of teaching is an essential part of the program. Students will observe systematically during their first year and teach during the last two years.

Short Courses

A series of short courses will be offered each year. Students may participate as they wish.

Evaluation

Written evaluations by the Graduate Committee will be given students twice each year. For the purpose of record keeping, at each stage of evaluation each student will be said to have failed to complete, completed, or completed-with-distinction half a year's work.

Mathematics and Statistics

Correspondence Directory: Walter W. Jacobs, *Chairman*

Fields of Study

Algebra, analysis, number theory, differential equations, applied mathematics, numerical analysis, probability, statistics, linear and nonlinear programming, computer science.

Full-time Faculty

Professor: Mary W. Gray, Walter W. Jacobs, Basil P. Korin, Nathaniel Macon, Steven H. Schot, John H. Smith

Associate Professor: David S. Crosby, Richard A. Holzsager, Edmund B. McCue

Assistant Professor: Austin M. Barron, I-Lok Chang, Martin Freeman, Charles B. Hallahan, James E. Hays, Maxine E. Kiefer, Claire T. Machlin, David P. Mather, Judith Steere Sunley, Howard Wilson

Undergraduate Degrees

Bachelor of Science

Admission to the Major

Freshmen and transfers will be counseled by the department. Formal admission is possible after the student has completed Calculus through Calculus IV with C's or better, or Calculus through Calculus III with C's or better and at least one grade higher than C. A 2.00 cumulative average is also required.

Composition and Reading Requirements—See page 25.

Language Requirement—See page 48. There is no department requirement beyond the College requirement. However, French, German, or Russian is recommended, especially for students planning graduate work.

Department Requirements

MATHEMATICS MAJOR

Major Courses:

41.111, 41.222, 41.223, 41.322, 41.412, 41.413, 41.520-521. Three courses selected from 41.440, 41.460, 41.461, 41.474, 69.502, 41.512, 41.513, 41.515, 41.540, 41.550, 41.551, 41.570.

Students, especially those planning graduate work in mathematics, are encouraged to select additional courses in consultation with advisor. Students planning graduate work in mathematics are advised to take 41.512 and 41.513.

Related Courses Required:

Three courses in a field of application, to be selected in consultation with advisor.

STATISTICS MAJOR

Major Courses:

41.111, 41.222, 41.223, 41.322, 41.474, 69.502, 41.510. Two courses selected from 69.530, 69.531, 69.515, 69.516, 41.576, 69.510, 69.511, and two additional approved departmental courses (.300 level or above).

Students planning graduate work in statistics are strongly encouraged to include as many as possible of the following courses in their programs: 41.412-413, 41.520-521, 41.570, 69.530-531.

APPLIED MATHEMATICS MAJOR

Mathematics Courses:

41.111, 41.222, 41.223, 41.322, 41.412, 41.413, 41.520.

Students are encouraged to take additional courses in operations research and computer science.

Statistics Courses:

Either (a) or (b):

(a) For students desiring a mathematical foundation in statistics: 41.474, 69.502.

(b) For students desiring statistics oriented toward a supplementary discipline, such as biology, economics, business, psychology, etc.: 69.202, and another statistics course.

Courses in the Supplementary Discipline:

Six courses to be selected in consultation with the department offering the supplementary discipline. The nature of the student's special interest will determine which courses are appropriate.

COMPUTER SCIENCE MAJOR

Major Courses:

41.260, 41.261, 41.360, 41.460. Two courses selected from 41.461, 41.530, 41.560, 41.566 and 41.596.

Mathematics Courses:

41.111, 41.222, 41.223 (Calculus I-III), and one additional course.

Related Courses Required:

Three courses in computer science, mathematics, or a related field of application, selected in consultation with a department advisor.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal require-

ments from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts in Mathematics

Course Requirements

(1) Minimum of 30 semester hours of approved graduate work, including 41.797 Master's Thesis Seminar in Mathematics and Statistics (6 credits), or

(2) Non-thesis option: Minimum of 33 semester hours of approved graduate work, including at least three hours of which must be six hours of a Research Requirement on the .600-.700 level.

Written Comprehensive Examinations

Three, including 41.001 Modern Algebra; 41.003 Real Variables or 41.004 Complex Variables and one other approved field.

Other Requirements

Proficiency examination in Russian, German or French to be satisfied before advancement to candidacy. Thesis and oral defense of thesis and the field in which it lies are mandatory in option (1). An oral presentation and defense of the research work undertaken under option (2) are required.

Master of Arts in Statistics

Course Requirements

Either a thesis or non-thesis option can be selected in fulfilling the course requirement. In addition to certain specified courses, up to 12 hours may be taken as independent Study Project including participation in directed work-study projects. Consult department for details.

(1) Thesis Option: Minimum of 30 semester hours of approved graduate work including 41.797 Master's Thesis Seminar in Mathematics and Statistics (6 credits).

(2) Non-thesis option: Minimum of 33 semester hours of approved graduate work, including six hours of a research requirement on the .600-.700 level and at least three hours of which must be 69.690 Research Project.

Written Comprehensive Examinations

Two examinations: 69.001 Statistical Theory and 41.024 Theory of Probability. For certain programs with strong emphasis in an applied field, an alternative exam to 41.024 can be arranged.

Other Requirements

Proficiency examination in Russian, German, or French to be satisfied before advancement to candidacy. Thesis and oral defense of thesis and the field in which it lies are mandatory in option (1). An oral presentation and defense of the research work undertaken under option (2) are required.

Doctor of Philosophy in Mathematics

Course Requirements

Minimum of 72 hours of approved graduate work is required including 12 semester hours in 41.799 Doctoral Dissertation Seminar in Mathematics and Statistics. In addition to the Doctoral Dissertation Seminar, at least 30 semester hours must be completed in residence at The American University.

Examination Requirements

A qualifying examination must be taken before completion of 24 credit hours of course work in the doctoral program. Four comprehensive examinations are required, three written and one oral. The fields for the written examinations are:

41.005 Real and Complex Variables

41.006 Modern Algebra and Linear Algebra
and a third field chosen from the following:

41.018 Numerical Analysis

41.026 Topology

- 41.027 Applied Mathematics
- 41.028 Operations Research
- 41.029 Probability and Statistics
- 41.030 Computer Science

Other Requirements

Proficiency is required in two languages chosen from French, German, or Russian, to be satisfied before advancement to candidacy. The dissertation must be directed by a full-time faculty member who holds the doctoral degree or is a full professor, and all other members must hold the doctoral degree or be full professors; an oral defense of it is required.

Doctor of Philosophy in Statistics

Course Requirements

A minimum of 72 semester hours of approved graduate work is required, which includes at least 12 semester hours in 41.799 Doctoral Dissertation Seminar in Mathematics and Statistics. At least 30 semester hours (plus dissertation credit) must be completed in residence at The American University.

Examination Requirements

A qualifying examination must be taken before completion of 24 credit hours of course work in the doctoral program. Four comprehensive examinations are required, three written and one oral. The fields for the written examinations are:

69.002 Advanced Statistical Theory (administered in two parts)

41.024 Probability

and a third field chosen from the following:

69.028 Linear Estimation

69.029 Multivariate Analysis

69.030 Decision Theory

69.020 Theory of Sampling

41.023 Stochastic Processes

Other Requirements

Proficiency is required in two languages chosen from French, German, or Russian, to be satisfied before advancement to candidacy. The dissertation must be directed by a full-time faculty member who holds the doctoral degree or is a full professor, and all other members must hold the doctoral degree or be full professors; an oral defense of it is required.

Music

Correspondence Directory: Lloyd Ultan, *Chairman*

Fields of Study

History and literature, musicology, theory, composition, church music, music education, applied music (performance).

Full-time Faculty

Professor: Evelyn Swarthout Hayes, James L. McLain, Gordon H. Smith, Lloyd Ultan

Associate Professor: Esther W. Ballou, Raphael Hillyer, Alan Mandel, Vito E.

Mason, George C. Schuetze, Jr.

Assistant Professor: Charles Crowder, Elizabeth Vrenios

Undergraduate Degrees

Bachelor of Arts*, Bachelor of Music, Bachelor of Music Education

Admission to the Major

A student is admitted only after audition and a one year probationary period. During the year of probation required of all new students, musical ability in the area of performance and in the field of music theory must be demonstrated. A 2.00 overall average is required and a B average in the major field.

Composition and Reading Requirements—See page 25.

Language Requirement—See page 48.

German is recommended for students specializing in music history.

Department Requirements

Major Courses

- 143.104 Theory I
 - 143.105 Theory II
 - 143.204 Theory III
 - 143.205 Theory IV
 - 143.300 History of Music I
 - 143.301 History of Music II
 - 143.302 Ear Training and Sight Reading
 - 143.304 Theory V
 - 143.305 Theory VI
 - **43.306 Conducting I
 - **43.307 Conducting II
 - **43.311 Orchestration
 - **43.312 Keyboard Harmony I
 - **43.313 Keyboard Harmony II
- and Applied Music until completion of Senior Recital.

Related Courses

All music majors must complete a minimum of three courses of additional work in one of the following fields of specialization:

Music history and literature

Music Theory (Fugue and two theory electives)

Composition (Fugue and one year of composition)

Music Education (Instrumental or Vocal; limited to BME candidates)

43.140 Introduction to Music Education; 43.363 General Music Methods and Materials; 21.300 Foundations of Education; and 21.444 Student Teaching: Elementary Schools and/or 21.445 Student Teaching: Secondary Schools are required of all students specializing in music education.

Performance (not open to B.A. candidates)

43.550 Pedagogy I, 43.551 Pedagogy II, and a minimum of one course of Applied Music at the 44.434 level are required of all students specializing in Performance.

Related Tool Courses

Private instrumental or vocal study in this department throughout the undergraduate program until completion of the Senior Recital—normally eight semesters. (B.A. candidates are required to have at least four semesters of private instrumental or vocal study.)

Other Requirements

A student majoring in music is required to:

- (1) Participate in a faculty-conducted ensemble, related to his performance area where

*The B.A. degree program is not recommended for students planning to do graduate work in music.

**Not required for B.A. in Music.

possible, for a minimum of one ensemble for each semester that he is in full-time attendance here (4 semesters for B.A. candidate; for a part-time student one semester of ensemble for each 4 courses completed on campus).

(2) Present one half of a senior recital program if a B.M. or B.M.Ed. candidate. A performance major presents a full senior recital program. No recital required for B.A. degree. Composition majors must include an approved original composition for their instrument in their recital.

(3) Pass a departmental *Senior Comprehensive Examination* in music history and theory normally during his final year of study.

Electives

To complete a minimum of 32 courses.

Graduate Degree

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts

Admission

See page 9.

For possible graduate deficiencies, consult the undergraduate departmental requirements. Graduate deficiencies may be made up by appropriate course work or by waiver examination.

Four semesters of harmony and of ear training, and one semester each of form and analysis, 16th century counterpoint, and 18th century counterpoint shall be considered the equivalent of Theory I-VI. Courses no longer offered by the department (e.g., 16th century counterpoint) may be made up as undergraduate reading courses or by waiver examination.

All students are required to take the departmental *Senior Comprehensive Examination* in music history and theory (Graduate Counseling Examination) either before or during their first semester of graduate work. The results are intended for counseling purposes only.

Students wishing to specialize in either Performance or Church Music are required to audition, either in person or by tape recording, prior to admission. The graduate degree in performance is offered in all undergraduate performance areas, with the exception of guitar.

Students wishing to specialize in music education are required to have completed before admission to graduate study:

(1) nine hours in education, and

(2) one semester of teaching experience, or the equivalent in practice teaching.

Students wishing to specialize in composition must submit a portfolio of at least five (5) original compositions (representing at least three different types of works) prior to admission.

Fields of Specialization

Course Requirements

Church Music

For this particular degree no thesis is required; minimum of 36 hours, including:

43.515 Advanced Conducting (3)

43.570 Music in Worship (3)

43.670 Seminar in Church Music (3) (written research paper required)

43.680 Medieval Music (3) (written research paper required)

43.701 Renaissance Music (3)

43.500 Music of the Baroque Era (3)

and either (for organ majors):

44.532 Service Playing and Improvisation (4) or

44.742 Private Instrumental Study (organ, 4-6)

or (for choral majors):

43.504 Studies in Music Literature: Sacred Vocal Music (3)

44.792 Private Vocal Study (4-6)

Composition

Minimum of 30 hours, including:

43.507 Studies in Music Theory (3)

43.703 Advanced Composition (3)

43.797 Master's Thesis Seminar (6), the requirement being a large composition rather than a thesis plus a minimum of nine hours of additional graduate-level theory and composition courses.

Music Education

Minimum of 30 hours, including:

43.760 History and Philosophy of Music Education (3)

either 43.797 Master's Thesis Seminar (6)

or 43.690 Research Project (6)

plus either (a) or (b):

(a) for *instrumental majors and vocal majors*:

21.522 Evaluation of Student Progress (3)

43.540 Introduction to Graduate Study in Music Education (3)

(b) for *general music majors*:

43.510 Introduction to Musicology (3)

Music History (Musicology)

Minimum of 30 hours, including:

43.510 Introduction to Musicology (3)

43.797 Master's Thesis Seminar (6)

Plus a minimum of twelve hours in additional graduate-level music history and literature courses.

Performance

Minimum of 30 hours in either program (a) or (b) (non-thesis option)

(a) 43.510 Introduction to Musicology (3)

43.550 Pedagogy I (2)

43.551 Pedagogy II (2)

43.797 Master's Thesis Seminar (6)

plus four hours of applied music at the 44.791 or 44.792 level.

(b) 43.550 Pedagogy I (2)

43.551 Pedagogy II (2)

43.555 Chamber Ensembles (up to four hours)

44.791 or .792 Applied Music Study (up to four hours)

43.696 Selected Topics: Research for Lecture/Recital (3-3)

Work will include intensive private instrumental

or vocal study and research in the lecture-topic area.

May not be taken concurrently with Applied Music classes or before the M.A. recital requirement has been completed.

Electives to include a minimum of twelve hours of graduate level academic courses in this Department.

Theory

Minimum of 30 hours, including:

43.507 Studies in Music Theory (3)

43.510 Introduction to Musicology (3)

43.797 Master's Thesis Seminar (6)

plus a minimum of nine hours of additional graduate-level theory courses.

Electives

Electives may include any other graduate-level courses in the Department of Music. Students specializing in church music may also select, with the assistance of the church music advisor, from among the following:

(1) Appropriate courses in the Department of Philosophy and Religion.

(2) Appropriate courses at the Wesley Theological Seminary.

Electives to complete the 30 hours (36 hours in church music) may not include:

(1) More than six hours of non-music courses; registration in such courses for credit toward the degree must be approved by the chairman of the Department of Music.

(2) More than four hours of applied music (students specializing in performance program (a) or in church music may not include more than six total hours of applied music, i.e., two hours beyond the four that are required).

(3) More than four hours of 43.555 Chamber Ensembles (1).

Comprehensive Examinations

One examination in music history and theory, and one examination in the student's field of specialization.

Comprehensive Examination Fields

43.000 General Music History and Theory (required of all students)

43.001 Composition or Theory

43.002 Music History (Musicology)

43.003 Church Music (organ sub-specialty)

43.004 Church Music (choral sub-specialty)

43.005 Music Education (instrumental)

43.006 Music Education (vocal)

43.007 Music Education (general music)

43.008 Master's Recital

Other Requirements

Proficiency in German, French, or an approved substitute is required of students writing a thesis (i.e., majors in music history, performance, theory and music education majors who elect 43.797). Statistics, or the equivalent, may be required, as determined by the Music Education Advisor, in place of a language proficiency for students specializing in music education.

Proficiency in organ playing is required of church music majors specializing in choral music; proficiency in choral singing techniques is required of church music majors specializing in organ music. This requirement can be met by completing satisfactorily appropriate undergraduate courses in applied music, as determined by the Church Music Advisor, or by waiver examination. However, undergraduate hours do not count toward Master's hours requirements.

Students majoring in performance are required to present a minimum of four appearances in departmental student recitals; at least one must be part of an ensemble performance, in addition to a full Master's recital program. Those in performance program (b) must present a lecture/recital in addition to and after completion of the M.A. Recital (43.008).

All graduate students in the department will be expected to assist performing ensembles for public performances should their services be required.

Philosophy and Religion

Correspondence Directory: Harold A. Durfee, *Chairman*

Fields of Study

Biblical theology, comparative religion, Eastern philosophy, epistemology, ethics, history of philosophy, logic, philosophy of religion, philosophy of science, philosophical theology, social philosophy.

Full-time Faculty

Professor: Harold A. Durfee (William Frazer McDowell Professor), Theodore R. Rosché, Roger T. Simonds

Associate Professor: Charley Dean Hardwick, Heimo Hofmeister, David F. T. Rodier (Director of Undergraduate Studies in Philosophy), Charles S. J. White (Director of Undergraduate Studies in Religion), William M. Wiebenga

Assistant Professor: Barry Blose, Phillip H. Scribner

Visiting Professor: Don Locke (Spring 1973), Ludwig Landgrebe (Spring 1972), Howard Kahane (Fall 1971), John A. Mourant (1970-71)

Undergraduate Degree

Bachelor of Arts

Composition and Reading Requirement—See page 25.

Language Requirement—See page 48.

Admission to Major

To be admitted to a major in this department a student must have completed 2 courses in philosophy or religion with a 2.00 cumulative average. Following admission the major student is required to take courses in the department for letter grades, maintaining a 2.50 cumulative in the major subjects.

Language Requirement

One language is required through the intermediate level: French, German, Greek, Hebrew or Latin. The number of hours required varies according to the student's prior preparation in language and the courses selected at the University.

Departmental Requirements

PHILOSOPHY

Major Courses

Students majoring in philosophy must complete 47.100 Logic and Scientific Method, 47.300-301 History of Philosophy, and 6 courses at the .300-level and above in philosophy which may include 3 courses in religion at the .300-level or above.

Related Courses

Three courses at the .300-level or above in a single department.

Related Requirement

Students majoring in philosophy are required to pass the Graduate Record Examination.

Electives

To complete a minimum of 32 courses.

RELIGION

Major Courses

Students majoring in religion are required to complete two of the following: 47.150 Introduction to the Old Testament, 47.170 Introduction to the New Testament or 47.180 Introduction to Religious Thought. They are also required to complete 47.370 The Religious Heritage of the West, and 5 additional courses in religion (.300-level and above) which must include 47.550 Studies in Non-Christian Religions and may include 3 courses in philosophy.

Related Courses

Three courses at the .300-level or above in a single department.

Electives

To complete a minimum of 32 courses.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts in Philosophy

Two means are available for achieving an M.A. degree in philosophy:

*FIRST METHOD***Course Requirements**

Minimum of 30 hours of approved graduate work including 47.797 Master's Thesis Seminar (6).

Written Comprehensive Examination

One eight-hour examination in philosophy (administered in two days, four hours each day). Examination fields 47.01A and 47.01B Philosophy.

Other Requirements

Proficiency examination in French or German. Thesis and oral defense of thesis.

SECOND METHOD

Admission to a Ph.D. program and satisfactory completion of all requirements for the program except the dissertation.

Master of Arts in Religion**Course Requirements**

Minimum of 30 hours of approved graduate work, including 47.797 Master's Thesis Seminar (6).

Comprehensive Examination Fields

Three are required, including one in the history of religions with special emphasis upon a selected non-Christian religion, one in the English Bible with special emphasis upon a selected author, and one in the History of Christian Thought with special emphasis upon a selected classical figure, or a related field.

47.003 History of Religions (with special emphasis upon a selected non-Christian religion).

47.004 English Bible (special emphasis upon a selected author).

47.021 History of Christian Thought (with special emphasis upon a selected classical figure in the same).

Other Requirements

Proficiency examination in French, German, Greek or Hebrew. Thesis and oral defense of thesis.

Doctor of Philosophy in Philosophy**General Requirements**

See page 26.

Minimum of 72 hours of approved graduate work are required of which at least 30 hours (plus 12-24 hours of dissertation seminar) must be completed in residence at The American University.

Admission

For admission consideration it is recommended that a student have a superior undergraduate record and take the Graduate Record Examination including the Philosophy Examination. Two letters of recommendation are required.

Course Requirements

Forty-eight to sixty-six hours plus 12-24 hours of dissertation seminar are required, including submission of two substantial papers plus 12 to 24 hours of dissertation seminar.

Tools of Research

Two language proficiency examinations, French and German, or acceptable substitutes are necessary.

Written Comprehensive Examinations

One written comprehensive examination must be taken before completion of 24 credit hours of course work.

Four are required to include:
Logic and epistemology
Metaphysics

Two are to be chosen from:
Ethics
Philosophy of religion
Philosophy of science
Social philosophy

Oral Comprehensive Examination

One is required in a field selected by the student and with departmental approval.

Comprehensive Examination Fields

47.010 Logic and epistemology
47.015 Metaphysics
47.020 Ethics
47.025 Philosophy of religion
47.030 Philosophy of science
47.035 Social Philosophy

Advancement to Candidacy

Upon successful completion of the comprehensive examinations and with departmental approval, the student will be advanced to candidacy for the doctoral degree.

Dissertation and Oral Defense

The doctoral candidate is required to enroll for 12-24 hours of dissertation seminar.

Physical Education

Correspondence Directory: Robert H. Frailey, *Chairman*

Fields of Study

Health education, physical education, dance, athletic administration, coaching, recreational leadership.

Full-time Faculty

Professor: Robert H. Frailey, Daniel S. Geiser

Associate Professor: Virginia E. Hawke, Josephine W. Hubbell

Assistant Professor: Billy G. Coward, James D. Frady, Jr., Lawrence G. Nyce, Jr., Naima W. Prevots, Barbara J. Reimann, Joseph R. Rogers

Instructor: Robert C. Karch, Roy J. Power

Undergraduate Degree

Bachelor of Science in Physical Education

The department is able to assist students in planning an interdisciplinary program leading to a Bachelor of Science or a Bachelor of Arts degree.

Admission to the Major

Freshmen and transfer students are admitted. Academic standards are the same as the University standards.

Composition and Reading Requirements—See page 25.

Language Requirement—See page 48.

Departmental Requirements

Major courses in fields of study.

PHYSICAL EDUCATION

Content Courses—Basic courses in the discipline

- 49.100 Physical Education Activities (half course each; minimum of four half courses at the .100 level)
- 49.221 Foundations and History of Physical Education and Sport
- 49.315 Care and Prevention of Athletic Injuries (49.330 may be substituted)
- 49.330 Health and Safety (49.315 may be substituted)
- 49.421 Organization and Administration of Health and Physical Education
- 49.424 Kinesiology and Physiology of Exercise. *Prerequisites:* 9.110, 9.330-331, 15.100
- 49.500 Measurement and Evaluation of Health and Physical Education

Professional Courses—Required for teacher certification

- 49.210 Methods and Materials in Physical Education
- 49.211-49.218 Laboratory Teaching Skills (half course each; minimum of four half courses should be selected, one of which must be 49.217)
- 49.310 Elementary School Rhythmic Activities
(For elementary school physical education majors in place of one 49.200 level Laboratory Teaching Skills course).
- 49.335 Elementary School Games
(For elementary school physical education majors in place of one 49.200 level Laboratory Teaching Skills course.)

Related Courses—Courses required for teacher preparation are listed below.

HEALTH EDUCATION

These courses may be taken in combination with a major in another discipline.

Content Courses

- 49.315 Care and Prevention of Athletic Injuries
- 49.330 Health and Safety
- 49.421 Organization and Administration of Health, Physical Education and Athletics (for those preparing to teach)
- 49.510 Health Education

Related Courses—A detailed list of courses in other departments is available in the Department of Physical Education.

DANCE

These courses may be taken in combination with a major in another discipline.

Content Courses

- 49.230 Workshop in Dance Production
- 49.325 Rhythms and Accompaniment
- 49.326 History and Philosophy of Dance
- 49.401 Composition of Dance

Professional Courses

- 29.216 The Teaching of Dance
- 49.235 Advanced Methods of Teaching Modern Dance

Related Courses—A detailed list of related courses in other departments is available in the Department of Physical Education.

ATHLETIC ADMINISTRATION, COACHING, AND RECREATIONAL LEADERSHIP

These courses may be taken in combination with a major in another discipline.

Content Courses

- 49.221 Foundations and History of Physical Education and Sport

- 49.315 Care and Prevention of Athletic Injuries
- 49.324 Principles and Psychology of Coaching
- 49.421 Organization and Administration of Health and Physical Education
- 49.550 Recreation Programs

Professional Courses

- 49.211-49.218 Laboratory Teaching Skills (half course each; minimum of two half courses)

Related Courses

A detailed list of courses in other departments is available in the Department of Physical Education.

Related Courses for Teacher Preparation

- 9.110 Human Biology
- 9.330-9.331 Human Anatomy and Physiology I and II (Prerequisites: 9.110 and 15.100 or equivalent)
- 15.100 Science of Chemistry
- 57.200 Introductory Survey of Psychology or 57.210 Introductory Psychology: Behavioral Principles
- 21.300 Foundations of Education
- 21.342 Methods of Teaching in Secondary Schools: General (For Health Education Teachers only)
- 21.444 Student Teaching: Early Childhood and Elementary or
- 21.445 Student Teaching: Secondary Schools

Physics

Correspondence Directory: Mark Harrison, *Chairman*

Fields of Study

Solid and liquid state physics, thermal and statistical physics, atomic and quantum electronics, nuclear and particle physics, advanced quantum theory, general relativity, acoustics, societal science, innovative teaching methods

Full-time Faculty

Professor: Earl R. Callen, Mark Harrison, Howard R. Reiss, Bancroft Sitterly (Emeritus), John A. White

Associate Professor: Ronald J. Adler, Benson T. Chertok, Jacek Jarzynski, Richard B. Kay, Romeo A. Segnan, Richard V. Waterhouse

Assistant Professor: E. Kevin Cornell, Henning W. Leidecker

Undergraduate Degrees

Bachelor of Arts & Bachelor of Science

Admission to the Major

The department counsels freshmen and transfer students. Formal admission to the major requires a 2.00 average and approval of the department undergraduate advisor.

Bachelor of Arts

The purpose of this program is to acquaint the student with the societal implications of science, and physics in particular, and to prepare him for an informed and creative role in this important area of human concern.

Composition and Reading Requirements—See page 25.

Language Requirements—See page 48.

Departmental Requirements

At least 3 courses from the following are required:

- 51.103 Science and Public Policy
- 51.200 Physics as Natural Philosophy
- 51.204 Population, Resources, and the Environment
- 51.205 Arms Control, Politics, and Science
- 51.207 Science and the Economic Future

Either 51.210 Concepts in Physics or 51.220-221 Introduction to Physics I, II.

Four additional courses at the .300-level or above chosen in consultation with the student's advisor and planned as a coherent program of study. Up to 2 courses may be taken in 51.490 Independent Projects in Societal Science.

Tool & Related Courses

Appropriate courses in mathematics, chemistry, and biology to be planned with the advisor according to the educational and vocational goals of the student.

Electives

To complete a minimum of 32 units.

Bachelor of Science

Composition and Reading Requirement— See page 25.

Language Requirement—See page 48.

Departmental Requirements

Students planning to major in physics should register for 51.220-221 Introduction to Physics I and II and their laboratories at the earliest opportunity. Prior or concurrent registration in 41.110 Fundamentals of Mathematics, and 41.111 Calculus I is required. It is urged that 51.220-221 be taken in the freshman year if possible and the sophomore year at the latest.

While 51.220-221 Introduction to Physics I and II is the customary starting point for physics majors, students with good high school preparation can begin with 51.330 Basic Concepts of Mechanics and 41.222 Calculus II.

Major Courses

- 51.220-221 Introduction to Physics I and II
- 51.222-223 Open Laboratory in Physics I and II
- 51.330 Basic Concepts in Mechanics
- 51.350 Basic Concepts in Electromagnetism
- 51.370 Basic Concepts in Modern Physics
- 51.452-453 Advanced Laboratory I and II
- 51.551 Electromagnetic Waves and Optics
- 51.560 Basic Concepts in Thermal Physics

Related Courses

- 15.120-130 General Chemistry I and II with laboratories, or high school chemistry.

Tool Courses

- 41.110 Fundamentals of Mathematics
- 41.111 Calculus I
- 41.222-223 Calculus II and III
- 41.321 Differential Equations (*recommended*)

Graduate Preparation

Students continuing on to graduate work in physics are advised to take the following:

- 51.500-501 Introduction to Mathematical Physics I and II
- 51.572-573 Quantum Physics I and II

Electives

To complete a minimum of 32 units.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts

General Requirements

A minimum of 30 hours of approved graduate work including 51.600-601 Current Topics I and II (2) which should be taken during the first year of graduate work.

Program Requirements

The Master of Arts program is intended to be flexible so as to meet the needs of the students whose interests are in teaching, management, or other multidisciplinary activities. During the first semester of the course 51.600 Current Topics I, the student will select an advisor with whom his program will be planned.

Written Comprehensive Examinations

Two approved fields: 51.001 Mechanics, Thermal and Statistical Physics, Mathematical Physics; 51.002 Electromagnetism, Quantum Mechanics and Applications.

Master of Science

General Requirements

A minimum of 30 hours of approved graduate work is required, including 6 credit hours of .600-.700 level research.

Core Courses

It is expected that the student will advance his knowledge of basic theory in the core areas of physics. Accordingly, the student will take many of the following core courses at an early date:

- 51.630-631 Theoretical Mechanics I, II
- 51.650-651 Electromagnetic Theory I, II
- 51.660-661 Statistical and Thermal Physics I, II
- 51.670-671 Quantum Mechanics I, II

While it is desirable to take all of these core courses inasmuch as they provide a conceptual foundation and are accordingly strongly represented on the comprehensive examinations, the student's program should also include such specialized courses as are required by the research training program. The appropriate balance of core courses and specialized courses should be worked out with the student's advisor as described below.

Research Training Program

In order to expedite the student's research training, it is required that the student during his first year of graduate work will register sequentially for two semesters of 51.600-601 Current Topics I and II (2). In the first semester of this course, he is required to select an advisor with whom he will plan a program of specialized courses to complement the appropriate core courses given above. The student then continues his research training by subsequently registering for six hours of either 51.795 Research Training Seminar or 51.797 Master's Thesis Seminar.

Written Comprehensive Examinations

Two approved fields: 51.001 Mechanics, Thermal and Statistical Physics, Mathematical Physics; 51.002 Electromagnetism, Quantum Mechanics and Applications.

Doctor of Philosophy

University Graduate Degree Requirements, See page 26.

Qualifying Examination

The student is required to take a qualifying examination before completion of the first twenty-four credit hours after entrance into the doctoral program. The qualifying examination is the above

M.S. comprehensive examination and may be waived by M.S. students who score a grade of Distinction.

Core Courses

The student is required to have completed 51.600-601 Current Topics I and II (2), 51.630-631 Theoretical Mechanics I and II (6), 51.650-651 Electromagnetic Theory I and II (6), 51.660-661 Statistical and Thermal Physics I and II (6), and 51.670-671 Quantum Mechanics I and II (6).

Dissertation

Upon completion of the qualifying examination the student and his advisor are expected to assemble a dissertation committee to assist in the planning of his doctoral program. While the doctoral program is principally concerned with the development of creative scientists, the program is flexibly arranged to accommodate students who are primarily interested in undergraduate teaching, administration, or other interdisciplinary studies. The dissertation is to be 12-24 credit hours.

Tool of Research

Proficiency in a language, computer science, or other tool deemed appropriate by the student's dissertation committee.

Oral Examinations

The student is required to take two oral examinations, one in defense of his dissertation and over the basic material relevant to the area of research.

Written Comprehensive Examination

Three approved examinations: 51.005, 51.006, 51.007 (Oral): Ph.D. Comprehensive Examinations I, II, III. These examinations cover the subject area of the dissertation and material relevant to the area of research.

Psychology

Correspondence Directory: Charles Ferster, *Chairman*

Fields of Study

Experimental, emphasizing learning and conditioning; clinical emphasizing behavior approaches.

Full-time Faculty

Professor: John J. Boren, Charles B. Ferster, Allen M. Leventhal, Elliott M. McGinnies, Fred H. Nothman, Margaret J. Rioch

Associate Professor: James J. Gray, Stanley J. Weiss

Assistant Professor: Alan L. Berman, Rodger Bufford, Stuart Culbertson, James Hays, Barry W. McCarthy, Alan Silberberg

Undergraduate Degree

Our philosophy in the Psychology Department is that the academic training should emphasize the fundamentals in the theory of behavior, particularly from a behavioral and experimental point of view. All of our experimental faculty are engaged in active laboratory research supported substantially by federal grants. Our clinical faculty are actively involved in field and clinical work.

In general we have two routes to a major in the Psychology Department. One route emphasizes behavioral psychology; the other is more traditional. There are enough courses for a student to take either route, although students will find much greater choice of courses by following the behavioral approach. Students are urged to sample from as many fields as possible.

Many of the Psychology Department courses are taught with an individualized method of instruction rather than by the traditional lecture/examination method. These are self-paced courses allowing the student to work at his own rate in conjunction with advanced students and faculty.

Bachelor of Arts

Formal admission to the major requires a 2.00 average and approval of the Department Chairman.

Composition and Reading Requirements— See page 25.

Language Requirement— See page 48.

Departmental Requirements

Major Courses

Psychology majors are required to satisfy the following requirements in order to be eligible for graduation:

(a) Completion with a C or better of

(1) Basic statistics, 69.202 and

(2) Psychological Statistics, 69.301 and

(3) Introductory Psychology—Behavior Principles, 57.210

or

Introductory Survey of Psychology, 57.200

(b) Completion of a minimum of 5 additional courses from the offerings of the Department. A student planning or pursuing graduate work should include in his undergraduate program:

57.310—Advanced Behavior Principles

57.480—Experimental Psychology

It is further recommended that the student sample from courses both in the experimental and applied areas. Consult a departmental advisor for guidance.

Related Courses

Students are encouraged to take related courses in other departments. For students who are interested primarily in the area of experimental psychology these should be in biology, physics, mathematics, chemistry and philosophy (of science). For students interested primarily in the clinical area, these courses should be in anthropology, sociology and education.

Electives

To complete a minimum of 32 courses.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

The goal of the graduate program in the Department of Psychology is to produce quality experimental and clinical psychologists for research, university teaching, and professional clinical service. All students receive a solid foundation in experimental science. Very few courses are specifically required, thus allowing the student to individualize his program. The faculty-student ratio is low, fostering extensive faculty-student interaction and frequent individually-directed research. The experimental and clinical programs are closely integrated resulting in clinical students with a solid foundation in experimental psychology and experimental students with an extensive understanding of clinical psychology.

Master of Arts and

Doctor of Philosophy in Experimental Psychology

Program Description

The primary concern of the experimental psychology program is to help the student develop his abilities to become a productive research scientist and teacher. Therefore, the essential character of this graduate program aims to stimulate creative research and its effective communication. This is achieved through on-going research activity the student can use as a model, and emphasis

on the early acquisition of those research tools necessary for independent work, and close student-professor cooperation in the laboratory. The goals of the experimental program are coordinated in course content, research experience, and teaching practicums.

Admissions—See page 9.

The Master's and Doctoral programs are continuous and integrated with an emphasis on productive research. Completion of the Master's program at a level demonstrating doctoral potential will permit the student to continue toward that degree. Admission criteria are so devised as to make this progression likely. The student will be evaluated by the faculty and informed as to his progress at the end of each year of graduate study.

Degree Requirements

Courses

Students must complete twenty graduate courses (sixty credits). Master's thesis research and dissertation research account for the additional twelve credits (the total number of credits required is seventy-two). The experimental student must take Foundations of Experimental Research, Directed Research, two graduate statistics courses of his choice and two courses which are clearly outside the area of experimental psychology. With the aid of his advisor, each student will select his other courses, according to his individual interests.

Master's Thesis

The Master's Thesis is the student's opportunity to demonstrate competency in research as well as providing an important learning experience. Students must pass an oral examination concerning the content of the Master's Thesis.

See also general requirements for all doctoral students page 26.

**Master of Arts
and
Doctor of Philosophy in Clinical Psychology**

Program Description

Clinical Psychology students are prepared to assume a wide variety of roles (clinical research, clinical service, teaching) within the scientist-professional model. The importance of basic behavioral science and research methodology is stressed. The major theoretical orientation of the department is one which stresses a comprehensive understanding of learning theory approaches to behavioral disorder and modification. Students are also provided with a rather extensive exposure to the more traditional psychodynamic methods of assessment and treatment. Four practicum courses provide a variety of supervised experience in individual and group psychotherapy.

Admission—See page 9.

The Master's and Doctoral programs are continuous and integrated with an emphasis on research and behavior modification. Completion of the Master's program at a level demonstrating doctoral potential will permit the student to continue toward that degree. Admission criteria are so devised as to make this progression likely. The student will be evaluated by the faculty and informed as to his progress at the end of each year of graduate study.

Degree Requirements

Courses

Students must complete twenty graduate courses (sixty credits). Master's thesis research and dissertation research account for the additional twelve credits (the total number of credits required is seventy-two). A clinical student must take Experimental Foundations of Clinical Psychology, Practica I and II, two graduate statistics courses of his choice, and two courses which are clearly outside the area of clinical psychology. With the aid of his advisor, each student will select his other courses, according to his individual interests. For example, students may combine courses in their individualized programs to emphasize clinical research, behavior modification or traditional approaches to clinical practice.

Master's Thesis

The Master's Thesis is the student's opportunity to demonstrate competency in research as well as providing an important learning experience. Students must pass an oral examination concerning the content of the Master's Thesis.

Pre-Doctoral Internship

In his fourth year, the clinical student will serve an internship in an appropriate setting outside the University.

General Requirements for All Doctoral Students

Evaluation for Doctoral Candidacy

Before becoming a doctoral candidate, each student will be evaluated by the entire faculty with regard to the quality of the:

1. Master's thesis
2. Course performance (at least a B average must be maintained in all courses, with no more than one C)
3. Assistantship and/or practicum performance
4. Oral examination that would serve as a Master's thesis defense and as fulfilling in part the qualifications for the doctoral candidacy

The Tool Requirement

Two tools are required but do not result in course credit required for degrees. The tool requirement is quite flexible and can be met in a variety of ways.

1. Demonstration of a knowledge of Russian or German, either by passing an examination given by the Language Department or by taking and passing a course in one of these languages. Other languages may be used for this requirement by special arrangement.
2. One formal course in Computer Programming or demonstration of mastery of a programming language.
3. One graduate course (related to the student's individual program) offered by other departments at the American University or by non-psychology departments of the Consortium of Universities.
4. One clinical institute which is approximately equal in time and difficulty to a full course.
5. Supervised tool training in other settings when approved by advisor and chairman.

Specialty Examinations

Each student will be required to complete two specialty examination assignments outlined by his advisor or other faculty members. These assignments are practical exercises related to future professional activities.

Dissertation

A written proposal of the dissertation is to be submitted to the dissertation committee by the middle of the second semester of the third year. The original proposal, or a revision thereof, should meet the requirements of the committee by the end of the second semester. This allows adequate time for the completion of a quality dissertation even if initial experimentation turns out to be exploratory in nature. The committee is composed of four members, including the chairman. In the event that a dissertation is interdisciplinary in nature, one of the committee members should be a representative of the pertinent outside area. These four members also constitute the dissertation oral committee. This examination is open to all members of the department, as well as the University in general, and constitute the final evaluation of the doctoral candidate.

Approval of the dissertation by the committee represents the successful completion of the doctoral program, since all other University and departmental requirements will have been satisfied by the time of the dissertation defense.

Students Entering with an M.A. in Psychology

Students who enter the program with an approved M.A. in Psychology will be required to complete twelve courses, two tools and two specialty examination assignments as well as the doctoral dissertation.

Sociology

Correspondence Directory: Howard M. Vollmer, *Chairman*

Fields of Study

Theory, methods, complex organizations, social stratification, social change, political sociology, public opinion and mass communications, sociology of occupations and professions, sociology of religion, social psychology; sociological, and social program design and evaluation

Full-time Faculty

Professor: Gillian Lindt-Gollin, Annabelle B. Motz, John Carver Scott, Jr., Austin Van Der Slice, Howard M. Vollmer

Associate Professor: Muriel Cantor, Karen Petersen

Assistant Professor: Ivan Eames, Barbara H. Kaplan, Harold Yahr

Instructor: E. Dudley Parris, Gordon Welty

Undergraduate Degree

Bachelor of Arts and Bachelor of Science

Admission to the Major

The student who maintains a 2.50 cumulative average on a 4.0 system may be admitted in the sophomore year after consultation with a department advisor.

Composition and Reading Requirements—See page 25.

Language Requirement—See page 48.

Departmental Requirements

Major Courses

- 65.200 Introduction to Sociology
- 65.410 Classical Sociological Theory
- 65.411 Contemporary Sociological Theory
- 65.420-421 Introduction to Social Research I and II
- 3 additional courses at the .300 level or above

Related Courses

- 69.202 Basic Statistics (recommended)
- Students will be counseled to take additional work in psychology, anthropology, economics, political science, history, philosophy, and statistics.

Electives

To complete a minimum of 32 courses.

Department Honors

Consult the department for details.

Bachelor of Science

To be awarded a Bachelor of Science degree, students must select more than fifty percent of their courses from Sociology, or more than seventy-five percent of their courses from Sociology and related fields (psychology, anthropology, economics, political science, history, philosophy and statistics).

Bachelor of Arts

To be awarded a Bachelor of Arts degree, students must have at least twenty-five percent of the courses in areas other than sociology and related fields and cannot accrue more than 16 sociology courses.

Undergraduate Major: Mass Media and Society

The Departments of Sociology and Communication are developing an undergraduate interdisciplinary major which will integrate the techniques of journalism and other media with sociological methods in reporting and investigating social dynamics and change. Students who wish further details should write to Dr. Robert Blanchard, Department of Communication.

Graduate Degrees

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts

Admission to the M.A. Program

The following persons may be considered for admission to the M.A. program of the Department of Sociology:

1. Persons who (a) meet general University requirements for admission to graduate study (see page 9), (b) maintained a 3.0 grade point average, based on a 4 point system, in their undergraduate major, and (c) have completed at least 12 hours of approved sociology courses.

2. Persons who (a) meet general University requirements (b) maintained a 3.0 grade point average, based on a 4 point system, in their undergraduate major, but (c) have not completed the first 12 hours of approved sociology courses may be admitted provisionally subject to completing 12 hours of sociology at the graduate level with a grade point average of better than B.

3. In special cases, persons who do not meet the above requirements and persons who do not have the required background in sociology will be considered for admission only on the understanding that more than 30 hours of approved graduate level work in sociology and related fields may be required to attain the M.A. degree.

M.A. Degree Requirements

The degree of Master of Arts in Sociology is awarded upon satisfaction of the following requirements:

***Course Work**

Attainment of a grade point average of better than B in thirty hours of approved graduate level course work in sociology and related fields (such as anthropology, economics, history, psychology, political science, etc.), including a research requirement of six credit hours. Twenty-four of these, including the research requirement, must be taken in residence at The American University. Six semester hours may, at the discretion of the department, be transferred from another accredited graduate school. Such transfer credit must be of "B" quality or better and appropriate to the degree program to which it is applied.

Programs of Study

For the regular M.A. program, a minimum of 6 semester hours of either thesis or non-thesis research is required. No other specific courses are required. However, the following program is recommended: 65.510 Concepts of Sociology, 65.611 Issues in Modern Sociological Theory, 65.612-613 Social Research Methods I and II. A minimum of 6 hours in a substantive field of interest to the student selected in consultation with his advisor, plus additional courses relevant to the candidate's career goals are suggested.

A new area of emphasis for the M.A. program is currently being developed in Social Program Design and Evaluation. For information on requirements for courses, internship, and thesis format, contact the Chairman, Department of Sociology.

Tools of Research

Demonstration of (a) ability to read percentage tables, (b) understanding of the difference between descriptive statistics and statistics of inference, (c) understanding of levels of measure-

*Upon approval, a portion of the residence requirement may be satisfied in courses offered by the Consortium of Universities of the Washington Metropolitan Area, Inc.

ment and descriptive and inferential statistics deemed, at the present time, most suitable for each level, (d) some familiarity with, but no expertise in, theory of sampling and alternative sampling designs in use, and (e) familiarity with basic data processing equipment is required.

This requirement may be satisfied by (1) satisfactory performance on a tools examination designated by the Department of Sociology, or (2) passing a graduate level statistics course (3 hours) approved by the department. If the student elects to take the statistics course, the three hours could contribute toward satisfaction of the thirty-hour course work requirement. Students interested in this option should consult the departmental office for details.

Comprehensive Examinations

Satisfactory performance on two written comprehensive examinations, one in sociological theory and one in methods of social research. In special circumstances, the student may petition the Executive Committee of the department to substitute another area of study for one of these examination areas.

It is strongly recommended that, in preparation for comprehensive examinations, the candidate develop detailed bibliographies for each examination field and discuss these bibliographies with faculty members responsible for examinations in each field one semester prior to the examinations.

Thesis or Non-thesis Option

For the Master's of Arts in Sociology, the student may either write a thesis or substitute advanced research training in lieu of the thesis.

Thesis Option

The candidate who elects the thesis option may obtain the required six semester hours of research credit toward the degree by passing (a) 65.797 M.A. Thesis (6 hours) or (b) 65.797 Thesis Seminar (3 hours) and 65.796 M.A. Thesis: Independent Study (3 hours) under the guidance of his thesis advisor. The candidate must register for at least three semester hours of 65.797 M.A. Thesis Seminar.

All thesis proposals must be submitted to a committee of three members, at least two of whom must be departmental members with professional rank, chosen by the degree candidate in consultation with his faculty advisor. Proposals are prepared and processed in accordance with instructions obtainable in the department office.

After the thesis manuscript has been accepted by the department, a date will be set for the final oral examination. Three copies of the manuscript must be in the hands of the chairman of the department for distribution to committee members at least two weeks before the examination. In the oral examination, the student may be questioned over the general field of his research.

Non-thesis Option

The candidate who elects the non-thesis option must attain a grade no lower than B in each of two three credit hour courses or seminars in advanced research training. Three of these six hours must include a course or seminar on the .500-level or above in which the student prepares a research report based on analysis of available data, analysis of newly-collected data, or an original synthesis of others' research findings and thinking with suggestions for future research.

The other three hours of the six hour requirement may be satisfied in one of two ways: (1) by taking another three-hour course or seminar on the .500-level or above in which a research report of the kind noted above is prepared, or (2) taking a course or seminar on the .500-level or above (not 65.612 or 65.613) focusing on a specialized research technique, e.g., computer applications in the social sciences, qualitative methods, evaluation research.

Candidates who intend to offer a particular course or seminar in partial fulfillment of the non-thesis option requirement must submit for approval a "non-thesis option" form, signed by the professor offering the course, to the department at the time of registration in the course.

M.A. Timetable

Ordinarily the M.A. degree has been obtained after two years of graduate study, but students with exceptional backgrounds may qualify in a shorter period. All work for the Master's degree must be completed within three years from the date of the first registration in the graduate degree program. A student who has not completed requirements in this time must petition for re-admission if he wishes to continue and may be subject to the degree regulations in effect at the time of re-admission.

Doctor of Philosophy

Admission to the Ph.D. Program

Consideration for direct admission to the doctoral program of the Department of Sociology is open only to persons who meet general University requirements for admission to graduate studies (see page 9) and who have completed 12 or more hours of approved graduate level course work in sociology and related fields (such as anthropology, economics, history, psychology, political science, etc.) with a grade point average of better than B.

Attainment of Doctoral Standing

To attain doctoral standing students admitted to the doctoral program must first complete 30 hours of approved graduate level work in sociology and related fields with an average of better than B.

Advancement to Candidacy

Advancement to candidacy is required prior to taking comprehensive examinations for the Ph.D. degree. Advancement to candidacy involves three steps:

1. Attainment of doctoral standing.
2. Passing the M.A. comprehensive examinations in sociological theory and methods of social research. This qualifying examination may be taken before or after attainment of doctoral standing in the department but, according to general University requirements, must be taken before the completion of 24 credit hours of course work in the doctoral program at The American University. If a student does not pass the qualifying examination, he may be permitted one retake. Such retake must be completed within nine months.
3. Recommendation for advancement to candidacy from the department's Graduate Advising Committee. The committee's recommendation will be based on a thorough review of the student's record. Before applying for this review, the student must complete the first two steps toward advancement to candidacy. Applications must be submitted between the 18th and 27th hours of graduate work completed after the student has attained doctoral standing. For details, consult the departmental office.

Degree Requirements

*Course Work

Attainment of a grade point average of better than B in 60 hours of approved graduate level course work in sociology and related fields and satisfactory completion of 12 hours of directed study on the dissertation (65.798 and 65.799) are required. A minimum of 30 hours of approved course work and 12 hours of directed study on the dissertation must be completed in residence after the student has attained doctoral standing in the department.

Recommended Program of Study

Twelve hours of directed study on the dissertation, including a minimum of 3 but no more than 6 hours of 65.799, are required. No other specific courses are required. It is, however, recommended that the candidate take twelve hours of course work related to each of his four comprehensive fields. In this regard, the student is urged to consult with his graduate advisor.

Tools of Research

Before submitting a proposal for a dissertation, the candidate must demonstrate proficiency in:

- (1) A modern language, customarily French or German, and
- (2) Statistics for social research.

Satisfaction of the language tool requires (a) passing a language examination designed to test the candidate's reading knowledge of the language, and (b) preparation of a satisfactory annotated bibliography of sociological books and major periodicals in the language. Credit hours in language courses taken to achieve the level of proficiency required to meet the tools requirement in language may not be counted toward satisfaction of the 60 hours of graduate course work. However, credit received in other graduate level language courses may contribute to this requirement if the course is approved by the department as relevant to the candidate's doctoral program.

The statistics tool may be satisfied through a proficiency examination designated by the

*Upon approval, a portion of the residence requirement may be satisfied in courses offered by the Consortium of Universities of the Washington Metropolitan Area, Inc.

department or by completing satisfactorily six hours of graduate work in statistics approved by the department. If the student elects to take the statistics courses, the six hours may, contingent on departmental approval, contribute toward satisfaction of the 60 hours of graduate course work requirement.

Comprehensive Examinations

Satisfactory performance on four comprehensive examinations, one in sociological theory, one in methods of social research, and two in elective fields, selected in consultation with the graduate advisor and approved by the department is required.* At least two must be taken within one year after completion of residence requirements. The other two may, but need not, be taken during the same examination period as the first two; they must, however, be taken within a calendar year of the first two examinations and must be taken during the same examination period. At least one of the four comprehensive examinations must be an oral examination.

The comprehensive examination is designed to test the broad general knowledge of the candidate and his ability to discuss intelligently and professionally basic issues in the field. This obviously cannot be gained from taking course work alone, but must come out of a background of wide reading of the literature and creative thinking and research in the field. It is strongly recommended that, in preparation for comprehensive examinations, the candidate develop detailed bibliographies for each examination field and discuss these bibliographies with faculty members responsible for the examination in each field at least one semester prior to the examination date.

Graduate Comprehensive Fields

Core Fields

Sociological Theory
Methods of Social Research

Specialized Fields

Social Institutions
Complex Organizations
Social Stratification
Social Change
Political Sociology
Public Opinion and Mass Communications
Social Psychology: Sociological
Sociology of Occupations and Professions
Sociology of Religion

Subject to the departmental approval, the candidate may offer as one of his two elective fields a special area not in the above listing. This approval will depend in large part on the adequacy of current faculty capability for direction of study and research in the field.

Dissertation

Capping the requirements for achieving the Doctor of Philosophy in Sociology is the dissertation, together with the required oral examination of the dissertation in which the candidate may be questioned over the general field of his research. Normally, the candidate must have completed all academic requirements for the degree before the oral examination is held.

All dissertation proposals must be submitted to a committee of four members (at least three of whom must be departmental members) chosen by the degree candidate in consultation with his faculty advisor. No person without the doctorate can serve on this committee. Proposals are prepared and processed in accordance with instructions obtainable in the department office.

After the dissertation manuscript has been accepted by the department, a date will be set for the final oral examination. Five copies of the manuscript must be in the hands of the chairman of the department for distribution to committee members at least three weeks before the examination.

The ABD Status

Candidates for the doctorate in sociology who have completed all requirements for that degree except the dissertation (the so-called "All-But-Dissertation" status) and who entered the

*Candidates who receive distinction from two of three readers on American University M.A. comprehensive examinations taken to qualify for doctoral standing may be excused from the applicable Ph.D. comprehensive examination, providing the examination was taken within three years of the Ph.D. comprehensive examination date.

doctoral program without a Master's degree in sociology may be awarded the Master of Arts in Sociology.

Ph.D. Timetable

Ordinarily the Ph.D. degree has been obtained after four to five years of full-time graduate study, but students with exceptional backgrounds may qualify in a shorter period. All work for the doctorate must be completed within five years from the date of the first registration as a doctoral student. However, the student is permitted seven years if he enters a doctoral program directly from a Bachelor's degree. A student who has not completed requirements in the time limits specified must petition for re-admission if he wishes to continue and may be subject to the degree regulations in effect at the time of re-admission.

Speech Arts

Correspondence Directory: Jerome B. Polisky, *Chairman*

Fields of Study

Speech communication, theatre, speech education, organizational communication

Full-time Faculty

Professor: J. A. Hendrix

Associate Professor: Kenneth Baker, Jerome B. Polisky

Assistant Professor: Boris I. Baranovic, Nicholas Howey, Herbert R. Voss, Joanne Yamauchi, Bruce Zortman

Undergraduate Degree Bachelor of Arts and Bachelor of Science

Admission to the Major

The department counsels freshmen and transfer students. Students are formally admitted to the major when they present a 2.30 grade point average and a 2.50 average in major courses (on a 4.0 system).

Composition and Reading Requirements—See page 25.

Language Requirement—See page 48.

Speech Communication Emphasis

Major Field Requirements

Minimum of eight courses in speech communication including:

67.150 Argumentation

17.201 Introduction to Human Communication

Related Field Requirement

Minimum of four courses in an approved related field.

Electives

To complete a minimum of 32 courses.

(Speech Communication majors are encouraged to participate in the intramural and/or intercollegiate forensic program of the department.)

Theatre Emphasis

Major Field Requirements

67.124-.125 Survey of Theatre I, II

67.300-.301 Technical Theatre I, II

Eight additional courses selected from acting, directing, technical theatre, design, playwrighting, theatre history and dramatic literature.

Related Field Requirement

No requirement

Electives

To complete a minimum of 32 courses.

(Theatre majors are expected to participate actively in the theatre programs of the department.)

Speech Education Emphasis

Students concentrating in speech education are expected to meet all the requirements for the speech communication major or all the requirements for the theatre major as outlined above. In addition, he must meet all the requirements prescribed by the Department of Education for primary or secondary school certification.

Organizational Communication Emphasis

The department is in the process of developing a program with organizational emphasis. As presently planned, students electing to concentrate in organizational communication will be expected to meet the major field requirements for the speech communication emphasis in addition to 4-6 courses in the area of organizational communication.

Graduate Degree

Candidates for graduate degrees in all departments are subject to University Graduate Degree Requirements, page 26 of this *catalog*. Requirements given below list the minimal requirements from a departmental point of view. University requirements that exceed these requirements are nonetheless binding upon the student.

Master of Arts

Areas of Concentration

Graduate students may concentrate in the areas of Speech Communication and Theatre.

SPEECH COMMUNICATION**Admission Requirements**

1.70 undergraduate index on a scale of $A = 3.00$, or 2.70 where $A = 4.00$. Minimum of 15 hours of undergraduate work in speech communication preferred. Two letters of recommendation. Personal interview if desired by the department.

Areas of Concentration

M.A. candidates in speech communication may concentrate in communication theory, rhetoric and public address, speech education or such special programs as may be approved by the Graduate Study Committee of the Department of Speech Arts.

Course Work

Twenty-four hours of course work as necessary and appropriate to prepare for demonstration of competence on comprehensive examination in student's selected area of concentration. Six hours of thesis seminar or approved non-thesis research on a .600-.700 level, to complete total of 30 hours. Any additional hours deemed necessary by the department.

Comprehensive Examination

Speech Communication graduate students will write one four-hour examination within a selected area of concentration as designated above. Within each area of concentration students can be expected to demonstrate competence on the comprehensive examination as follows:

Rhetoric and Public Address

Rhetorical Theory and Criticism

American Public Address

British Public Address

Interpersonal Communication

Speech Education

Instructional Methodology

Small Group Communication

Rhetorical Theory

Philosophy of Education

*Communication Theory**Experimental Methodology**Interpersonal Communication**Small Group Communication**Rhetorical Theory***Oral Examination**

A final oral examination based primarily although not exclusively on the candidate's M.A. thesis is required.

THEATRE**Admission Requirements**

1.7 undergraduate index on a 3.0 scale or 2.7 index on a 4.0 scale. Minimum of 15 hours of undergraduate work in theatre and dramatic literature is preferred. Two letters of recommendation. Personal interview if desired by the department.

Areas of Concentration

M.A. candidates in theatre may concentrate in theatre history and criticism, directing, playwriting, design/technical theatre and in such special programs as may be approved by the departmental Graduate Study Committee.

Course Work

Twenty-four hours of course work to include work in the area of concentration and work in related courses to include Research Seminar in Speech Arts (67.602), Dramatic Theory and Criticism (67.560), and Seminar in Production Planning in the Theatre (67.620). Six additional hours in Master's Thesis Seminar (67.797) for theatre history and criticism area of concentration or Non-thesis Option Seminar (67.798) for directing, playwriting and design/technical theatre areas of concentration.

Thesis and Non-thesis Option

Students electing the Master's Thesis Seminar will complete a thesis. A student electing the Non-thesis Option Seminar will complete two creative production projects in his area of concentration. Production projects in directing and design/technical theatre must be accompanied by approved documentation.

Comprehensive Examinations

Two three-hour examinations are required after 24 hours of course work or its equivalent have been completed. The first examination will cover the general area of theatre. The second examination will cover the student's area of concentration. All examinations will be administered by the department six weeks after the student has notified the department chairman in writing that he intends to write examinations. A student may not proceed with the Master's Thesis Seminar or Non-thesis Option Seminar until the comprehensive examinations have been satisfactorily completed.

Oral Examination

A final oral examination based primarily on the student's thesis or non-thesis creative production projects is required of all graduate degree candidates.

School of

Business Administration

ACTING DEAN	Herbert Glazer
Assistant Dean for MBA Program	Charles I. Bartfeld
Assistant Dean for Undergraduate Studies	Laura L. Karadbil
Assistant Dean for Administration	Francis J. Girard

Philosophy

The goal of THE SCHOOL OF BUSINESS ADMINISTRATION is to create and maintain an environment of academic excellence which will encourage and support scholarly endeavor, stimulate intellectual curiosity, and thereby contribute to the development of individuals capable of self-fulfillment and leadership in society and business.

The undergraduate curriculum combines liberal arts, general education in business administration, and limited professional specialization.

At the undergraduate level our efforts are geared to providing the student a broad basic understanding of the nature and purpose of business, its role in society, and a general knowledge of the workings and interrelationships of the major functional areas of business.

We proceed on the premise that those who seek the Master's degree in business aspire to positions of leadership in some areas of economic activity in a society that is increasingly dynamic. The individual's success, under these conditions, requires more understanding of broader issues and concepts than detailed knowledge of specialties. We attempt to help the individual develop such understanding.

Subject Matter—The broad areas of subject matter offered are those relating to the role of business in our society, the operation of the major functional divisions of business, analytical tools, and the simulation of enterprise activity.

Presentation Methodology—Each presentation is designed to emphasize the importance of understanding issues and concepts as well as the growing need to anticipate and prepare for change.

School of

Business Administration

Correspondence Directory: Herbert Glazer, *Acting Dean*

Charles I. Bartfeld, *Assistant Dean for MBA Program*

Laura L. Karadbil, *Assistant Dean for Undergraduate Studies*

Francis J. Girard, *Assistant Dean for Administration*

Full-time Faculty

Professor: *Nathan A. Baily, Orton W. Boyd (*Emeritus*), Marvin L. Fair (*Emeritus*), Herbert Glazer (*Acting Dean*), Joseph E. Hampton, Edward R. Lehman, Howe Martyn, Walter F. Muhlbach (*Emeritus*), Nikos G. Photias, Myles E. Robinson, Reynold M. Sachs, Maury Seldin, Harold F. Sylvester, Harold B. Wess (*Emeritus*)

Associate Professor: George R. Allen, Lincoln Armstrong, Charles I. Bartfeld, Kirk L. Burns, William C. Dulin, William Evans S. Flory, Jimmy D. Johnson, Laura L. Karadbil, James Owens, Harry Rosenthal, Harry J. Wheaton

Assistant Professor: Donald R. Brenner, James R. Butts, Ronald H. Gorman, William E. Halal, John H. Hammaker, John Kokus, Jr., Conway Lee Lackman, *Robert W. Miller, James C. Sharf

Instructor: Peter J. Cirafici

*Administrative Leave 1972-73

Undergraduate Degree

Admission—See page 5.

Composition and Reading Requirements—See page 25.

Bachelor of Science in Business Administration

This degree requires a minimum of thirty-two courses with at least a "C" overall average and at least a "C" grade in each course in the major. The required courses are:

1. General Studies Requirements (sixteen courses)

General studies in basic areas of knowledge for broad, rounded education and as foundations. Designed to strengthen basic skills, provide background of knowledge whereby students can move easily in the world of ideas, and increase appreciation of values of our society.

Composition and Reading (2)

Computers (1)

Economics (2)

Mathematics (1)

Psychology or Sociology (1)

Statistics (1)

Electives (8)

2. Business Administration Requirements

(A) Common Requirements for all Business students (five courses)

Accounting

Business Law

Corporate Finance

Marketing

Management Policy and Practice
(senior year)

(B) Major-Related Requirements (two courses)

To be selected from the ten courses below

Introduction to Managerial

Accounting

Fundamentals of Management
 Advanced Business Law
 Quantitative Analysis
 Urban Development
 Business-Government Relations
 Business Responsibility in
 American Society
 Fundamentals of International
 Business
 Fundamentals of Income Tax
 Transportation and Logistics

3. Major

The major, three related courses, provides limited study in selected functional areas of business. This major, like a major in any other school in the University, is the student's exploration in depth and shows his ability to master an integrated curriculum.

The student may use his electives to further intensify study of a specific major or to accomplish a double major.

The available majors are:

SCHOOL OF BUSINESS

Accounting
 Finance
 Marketing
 Personnel
 Urban Development
 Computer Systems (Approved Interdisciplinary)
 Business Economics (Approved Interdisciplinary)

INTERDISCIPLINARY STUDY

In addition to the structured approved interdisciplinary majors noted above, University Regulations provide that a student may propose a major built around a central theme that cuts across various disciplines.

The major must be officially selected (or confirmed) before registration for the first session of the junior year. Forms must be acquired from and filed in the Office of Assistant Dean, Undergraduate Studies, and in the Office of the Registrar. Changing majors later than the beginning of the junior year may require additional courses.

4. Electives (six courses)

Three electives must be in either Business Administration, Economics or Center for Technology and Administration. The other three may be selected from any area of the University.

5. Advanced Standing

(A) Freshmen.

For details on Advanced Placement see page 6.

(B) Transfer Students

In addition to acceptance of transfer credits from accredited schools, advanced standing is available to CPA's, Members of the Bar, and American Institute of Banking students. Consult the Assistant Dean for Undergraduate Studies for details.

Graduate Degrees

Admission

See page 9.

Application may be made for any fall, spring or summer session. *Note: The Admission Test for Graduate Study in Business* scores must be provided.

If an applicant has missed the University deadline for admission to degree status, he may: (1) apply for admission to the College of Continuing Education; (2) be counselled by the School of Business Administration as well; and (3) apply for admission to degree status for the following session. No more than 12 credits of graduate courses may be transferred from non-degree status.

Admission Prerequisites

All applicants must submit a valid (taken within last 3 years) ATGSB score to be considered for admission. This test is used as an admissions criterion by the leading graduate schools of business administration. The test is offered four times a year in various locations. Applications should be received by Educational Testing Service no later than two weeks before date of test for examinations in U.S. and its territories or Canada. For candidates tested in other countries, the registration deadline is one month before test.

The *Bulletin of Information for Candidates* is available from the Educational Testing Service, Box 966, Princeton, New Jersey 08540. The ATGSB is *not* designed to test specific knowledge in business administration. It seeks to measure *aptitude* for, not knowledge of, business administration by seeing whether candidates can understand and use words and numbers and reason effectively. Normal undergraduate education should provide sufficient general knowledge to deal adequately with test questions.

Applicants for the fall semester should take test in February or April; and for spring, in June or November.

At least two letters of recommendation either from former professors or from recent employers and evidence of professional attainment must be submitted in support of MBA and M.S. applications. Ph.D. applicants *must* have letters of recommendation submitted from two of their former professors.

Master of Business Administration

The purpose of the MBA Program is to provide a professional education for managers, along with individual preparation in a specific area.

NEW MBA PROGRAM

Degree Requirements

The revised new MBA program consists of 51 self-contained graduate credit hours (17 courses), without undergraduate prerequisite course requirements. All students must meet University requirements for graduate study.

Present requirements are 33 credits in the core curriculum, 12 credits in an area of concentration and 6 credits in selected courses generally outside the area of concentration.

Performance Standards

All students must maintain a minimum 3.0 (B) average in all courses attempted and minimum 3.0 (B) average in all area of concentration courses.

Residence Requirements

Thirty hours of graduate courses must be completed in residence with a grade average of at least B.

Credit for previous equivalent graduate work at other accredited institutions completed with a grade of at least B may be granted upon petition up to a maximum of 21 hours.

Waiver Examinations

Credit not exceeding 21 hours for previous undergraduate work in courses completed with a B or better grade, and/or significant relevant work experience in the discipline involved, may be obtained after payment of a required fee by passing waiver examinations in First Year Core Curriculum courses.

Waiver examinations will be given in the fall, spring, and summer semesters. Dates for application deadlines will be posted on MBA bulletin board outside Hamilton 102. Applications for waiver examinations must be filed within three months after registration and must be taken within nine months after such registration. Applicants will be notified of action taken and dates of examination.

Advancement to Candidacy

After fulfilling all conditions and obligations specified in individual Graduate Admission Notices and completion of at least 15, but no more than 24 graduate credits in the School of Business Administration, a student must apply for "Advancement to Candidacy" by filing an appropriate application (Form B-6A) in the MBA office. Students with advanced standing either by transfer of equivalent graduate work or by waiver examination must apply before the sum of all their credits exceeds 24 hours.

Advancement to candidacy means admission to full standing if admitted on a provisional basis. It does NOT imply admission to comprehensive examinations.

The Director of the MBA program will notify applicant of action taken.

First Year Core Curriculum

Managerial Accounting
 Business & Its Social Environment
 Financial Management (Prerequisite: Managerial Accounting)
 Managerial Statistics
 Quantitative Methods (Prerequisite: Managerial Statistics)
 Theories of Organizational Behavior
 Managerial Economics
 Case Studies in Organizational Behavior
 (Prerequisite: Theories of Organizational Behavior)
 Marketing Management

Second Year Core Curriculum

Seminar in Management Planning and Control
 Seminar in Management of Enterprises

Areas of Concentration

Accounting
 Business-Government Relations
 Employee Relations
 Finance
 International Business
 Managerial Economics
 Marketing
 Operations Analysis
 Real Estate
 Transportation

An Example of a Full-time M.B.A. Program

1st Semester

Managerial Accounting
 Business and Its Social
 Environment
 Managerial Statistics
 Theories of Organizational
 Behavior
 Marketing Management

3rd Semester

Case Studies in Organization
 Behavior
 Two Major Courses
 One Elective Course

2nd Semester

Financial Management
 Quantitative Methods
 Managerial Economics
 One Major Course

4th Semester

Seminar in Management Planning
 and Control
 Seminar in Management of
 Enterprises
 One Major Course
 One Elective Course

Comprehensive Examinations

One comprehensive examination in the major field must be successfully completed. These examinations are given in the fall, spring and summer semesters.

Students must apply for comprehensive examinations separately before the final dates announced, meet all requirements for sitting for examinations and pay required fee.

Graduation Clearance

Graduation clearance procedures are promulgated by the University Registrar. Students are advised to follow University procedures and dates.

OLD MASTER'S PROGRAM

Students in the old MBA M.S. Program prior to fall 1971 are encouraged to complete their degree requirements as speedily as possible, so that effects of the new revised masters' program will be minimized.

All courses indicated as deficiencies in the letter of admission must be completed successfully or waived, before any graduate courses may be attempted, except with the permission of the MBA Director.

Grades

Minimum 3.0 (B) average in all graduate courses attempted and minimum 3.0 (B) average in all area of concentration courses.

Advancement to Candidacy

After fulfilling all conditions and obligations specified in individual Graduate Admission Notices, completion of all prerequisite courses and completion of at least 12, but no more than 18 graduate credits in the School of Business Administration, a student must apply for "Advancement to Candidacy" by filing an appropriate application (B-6) in the MBA office.

Advancement to candidacy does NOT imply admission to comprehensive examinations. However, it means admission to full standing, if admitted on a provisional basis.

The Director of the MBA program will notify applicant of action taken.

Comprehensive Examination

One comprehensive examination in area of specialization is required. These examinations are given in the fall, spring, and summer semesters.

Students must apply for comprehensive examinations separately before the final dates announced, meet all requirements for sitting for examinations and pay required fee.

Final application date for students with comprehensive area in Technology of Management are those announced in the University's semester *Schedule of Classes* "taken under the auspices of the Dean of Graduate Studies".

Final application dates for all other SBA students are posted on the MBA bulletin board, outside Hamilton, Room 102.

Graduation Clearance

Graduation clearance procedures are promulgated by the University Registrar. Students are advised to follow University procedures and dates.

Operations Analysis (Management Science) Program

To serve the needs of many students seeking a more flexible program which takes account of their individual educational backgrounds and experience, SBA offers a new comprehensive field: Operations Analysis (Management Science). This program uses an interdisciplinary approach to the present areas of technology of management and presents a balance between specific quantitative/technical fields, management and related areas.

The program is designed to integrate and synthesize the tools of management science and computers from the point of view of management. The major emphasis in this program is on preparing mature graduate students for positions of increased executive responsibility and leadership.

Course requirements in this program are flexible, with only the culminating seminar 11.795 Seminar in Operations Analysis (3) and, for Doctoral candidates, 11.796 Doctoral Literature Seminar in Operations Analysis (3) required. The other courses in the comprehensive field will be selected from relevant courses currently offered within the University on the basis of their suitability to the individual student in consultation between the student and his faculty advisor.

Maintaining Matriculation

See page 29.

Continuous Study

Any degree candidate, full-time or part-time, who has not completed course requirements and who has been out of attendance for two consecutive sessions (excluding summer), must meet all degree requirements prevailing when he returns. A degree candidate who does not register for classes or graduate study for one or more years and wishes to return will be considered as applying for new admission.

Transferability of Credits Taken at Military Institutions

Regionally accredited military institutions (e.g., U.S. Naval Post-Graduate School at Monterey) are treated as other regionally accredited institutions. Six graduate credits, where appropriate to student's program, may be transferred toward either M.B.A. or Ph.D. from the National War College, Industrial College of the Armed Forces, Army War College, Navy War College, Air War College, and Foreign Area Specialist Training Program (Soviet Union, Detachment "R" Oberammergau).

Credits may be transferred only for the full course in residence and for the three service colleges (Army, Navy, and Air Force), the senior course only, if a distinction is made between that course and others.

Statute of Limitations

All M.B.A. degree requirements are expected to be completed within three calendar years (including summers) from the date of first registration as a graduate student in full standing. If not completed within that period, the student must petition the Dean of the School of Business Administration for extension of the statute of limitations if he wishes to continue. If the petition is approved, a new terminal completion deadline will be set which may not exceed three additional calendar years. The petition must carry with it the written recommendation of the Director of the student's Major Program.

Institute for Housing and Urban Development Studies

The major thrust of the Institute's Certificate Programs is to improve the quality of housing and urban development decisions in an increasingly complex society. The goal is pursued by offering a group of courses intended for managerial and professional people already in the field or aspiring to responsible positions calling for the application of expert knowledge.

Undergraduate Certificate in Real Estate

This innovative program provides an integrated "package of courses" for those seeking competence in the field of real estate. Credit is applicable to University degree programs.

Required Courses in Business Administration

- 10.201 Business Law or 11.470 Urban Development
- 10.206 Introduction to Accounting
- 10.465 Business Finance
- 10.100 Introduction to Economics

Required Courses in Real Estate and Urban Development

- 72.570 Housing Low and Moderate Income Families or
- 11.471 Housing and Social Control or
- 11.472 Residential Construction
- 72.477 Real Estate Transactions
- 72.578 Real Estate Law or
- 11.476 Real Estate Investment Strategy
- 31.401 Property Management I
- 31.504 Real Estate Appraisal I

Graduate Certificate in Housing and Urban Development

This program offers a variety of courses specifically oriented to contemporary problems for the college graduate who wishes to increase his proficiency in the field. A unique feature is the offering of internship credit for experience which relates the body of knowledge to real world situations.

Basic Courses

- 72.578 Real Estate Law
- 11.472 Residential Construction or
- 72.570 Housing Low and Moderate Income Families
- 31.401 Property Management I or
- 31.504 Real Estate Appraisal I

Internship

- 72.591 Internship in Urban Real Estate Problems (1-6)

Advanced Courses

- 11.685 Land Planning and Use
- 11.682 Mortgage Banking
- 11.683 Real Estate Market Analysis

Three Hours from:

- 11.776 Seminar in Real Estate Administration (3)
- 11.778 Seminar in Land Planning and Use (3)
- 11.779 Seminar in Housing and Urban Development (3)

Three Hours from:

- 31.501 Property Management II (3)
- 31.505 Real Estate Appraisal II (3)

Three Hours from:

- 54.681 Metropolitan Analysis (3)
- 54.682 Urban Politics (3)
- 54.684 Urban Planning (3)
- OR approved substitute

**Master of Science in Real Estate
and Urban Development Planning**

Admission

Admission requirements, including the required *Test for Admission to Graduate Study in Business* are the same as for M.B.A. program.

General Requirements

The program for the Master of Science in Real Estate and Urban Development Planning degree is designed as a two-year program requiring 51 credit hours of work with minimum of 30 hours in residence and completion of a comprehensive examination.

Students with previously earned credit in graduate business courses with grade completion of B may petition for a reduction of up to twenty-one hours of credit. Students with related experience or undergraduate course work with a B or better grade may apply to take Waiver Examinations, the successful completion of which will constitute grounds for exemption up to twenty-one hours of course work. Remission of credit in such instances will follow existing University petition procedures.

To be eligible for Waiver Examinations, applications must be filed in the Graduate Studies Office within three months following date of registration as a graduate student and must be taken within nine months after such registration. Applicants will be notified of action taken and dates of examination.

An Example of a Full-time M.S. Program

1st Semester

- Managerial Accounting
- Managerial Statistics
- Real Estate Law
- Theories of Organizational Behavior

2nd Semester

- Managerial Economics
- Financial Management
- Quantitative Methods
- Land Planning and Use

3rd Semester

Real Estate Market Analysis
 Mortgage Banking
 Real Estate Appraisal II, or
 Housing for Low and Moderate
 Income Families
 Seminar in Land Planning and Use
 Metropolitan Analysis, or
 Urban Planning, or,
 Approved Substitute

4th Semester

Seminar in Real Estate
 Administration
 Seminar in Housing and Urban Development
 Two (2) Approved Electives

Performance Standards

Students must maintain an overall "B" average at all times.

Advancement to Candidacy

After fulfilling all conditions and obligations specified in individual Graduate Admission Notices and completion of at least 15, but no more than 24 graduate credits in the School of Business Administration, a student must apply for "Advancement to Candidacy" by filing an appropriate application (form B-6A) in the MBA office. Students with advanced standing either by transfer of equivalent graduate work or by waiver examination must apply before the sum of all their credits exceeds 24 hours.

Advancement to candidacy means admission to full standing if admitted on a provisional basis. It does NOT imply admission to comprehensive examinations.

The Director of the MBA program will notify applicant of action taken.

Comprehensive Examinations

One comprehensive examination in the major field must be successfully completed. These examinations are given in the fall, spring and summer semesters.

Students must apply for comprehensive examinations separately before the final dates announced, meet all requirements for sitting for examinations and pay required fee.

Graduation Clearance

Graduation clearance procedures are promulgated by the University Registrar. Students are advised to follow University procedures and dates.

Statute of Limitations

All M.S. degree requirements are expected to be completed within three calendar years (including summers) from the date of first registration as a graduate student in full standing. If not completed within that period, the student must petition the Dean of the School of Business Administration for extension of the statute of limitations if he wishes to continue. If the petition is approved, a new terminal completion deadline will be set which may not exceed three additional calendar years. The petition must carry with it the written recommendation of the Director of the student's Major Program.

Doctor of Philosophy in Business Administration**Admission**

Admission is based on superior academic performance and personal qualities, including completion of a Master's degree from an accredited university. Applicants must earn a score of 650 minimum on the *Admission Test for Graduate Study in Business*.

Requirements

Doctoral students must complete a minimum of 36 graduate credits of doctoral work plus 6 credits of dissertation seminar with better than a "B" average in each Doctoral Comprehensive Field.

Tools of Research

Accounting and Statistics (unless a foreign language or mathematics is approved in lieu of Statistics) are the Tools of Research requirements. Students must complete both tools before applying for Advancement to Candidacy.

Advancement to Candidacy

Doctoral students who have completed 15 to 18 hours of doctoral work in residence with above "B" average in each doctoral field must apply for Advancement to Candidacy. An integral part of the Advancement to Candidacy requirement is passing a Qualifying Examination. This examination is not limited to the comprehensive areas of the student and has the purpose to ascertain the applicant's ability to express himself in an organized and scholarly way.

Comprehensive Examinations

Upon completion of the required doctoral work, except for the dissertation seminar requirement, candidates must pass Comprehensive Examinations in four fields, two of which are required (Management and Managerial Analysis) and two elective fields (one of which may be outside the area of Business Administration with the approval of the Director of the Doctoral Program) from the following:

Business-Government Relations, Business Finance, Industrial Relations and Manpower Management, International Business, Marketing, Operations Analysis, Land Planning and Use—Real Estate, Transportation and Physical Distribution.

Operations Analysis (Management Science) Program

To serve the needs of many students seeking a more flexible program which takes account of their individual educational backgrounds and experience, SBA offers a new comprehensive field: Operations Analysis (Management Science). This program uses an interdisciplinary approach to the present areas of technology of management and presents a balance between specific quantitative/technical fields, management and related areas.

The program is designed to integrate and synthesize the tools of management science and computers from the point of view of management. The major emphasis in this program is on preparing mature graduate students for positions of increased executive responsibility and leadership.

Course requirements in this program are flexible, with only the culminating seminar 11.795 Seminar in Operations Analysis (3) and, for Doctoral candidates, 11.796 Doctoral Literature Seminar in Operations Analysis (3) required. The other courses in the comprehensive field will be selected from relevant courses currently offered within the University on the basis of their suitability to the individual student in consultation between the student and his faculty advisor.

Dissertation

Candidates who passed their comprehensive examinations must successfully defend a dissertation approved by their Dissertation Advisory Committee as reflecting an original contribution to the established body of knowledge in the dissertation field, which must lie within the jurisdiction and competence of the School of Business Administration faculty.

Transfer Credit

Transfer credits for prior work satisfactorily completed at other accredited institutions is determined at the time of Advancement to Candidacy and must be judged appropriate to his doctoral degree program.

Statute of Limitations

All degree requirements must be completed within five years from the date of the first registration as a doctoral student.

Student Guide

A detailed Student Guide has been published by the Doctoral Association of the School of Business Administration.

Special Programs

Institutes

The School periodically offers specialized professional institutes, primarily for practicing businessmen. Planned with leading practitioners and, generally, appropriate trade and professional associations, they are part of the school's "continuing education" and offer short, intensive instruction on a time schedule permitting leave from regular duties. They are an important means of strengthening professional qualifications of both faculty and businessmen as well as a means of counteracting executive "obsolescence." See Institutes under course listings.

College of Continuing Education

DEAN	Herbert E. Striner
Assistant Dean for Administration	Henry E. Holmquist
Assistant Dean for Institutes and Management Programs and Director, Center for Technology and Administration	Paul W. Howerton
Assistant Dean for Off Campus and In-Service Programs	Herbert P. Stutts
Director for Community Programs	Trey Coleman
Director for Center for Educational Technology	Gabriel D. Ofiesh
Acting Director for English Language Institute	Eugene L. Shiro
Director for Center for the Administration of Justice	David J. Saari

The mission of THE COLLEGE OF CONTINUING EDUCATION is to serve the educational needs of adults who seek professional or personal advancement through full- or part-time study.

Some adults enroll in the College of Continuing Education to complete a degree. Many students take courses to meet professional requirements of their career field, while others take courses for personal enrichment.

The College of Continuing Education offers a wide range of academic programs geared to meet highly diversified student needs. These programs include degrees and certificates both on an undergraduate and graduate level, in-service training, and research programs. The certificate programs are offered for specialized preparation in a particular career field. Under certain conditions certificate work may be applied towards the award of a degree.

College of Continuing Education

Correspondence Directory: Herbert E. Striner, *Dean*

Henry E. Holmquist, *Assistant Dean for Administration*

Paul W. Howerton, *Assistant Dean for Institutes and Management Programs*

Herbert P. Stutts, *Assistant Dean for Off Campus and In-Service Programs*

Programs of Study

Center for the Administration of Justice: Undergraduate Certificate, Associate Degree, Bachelor of Science, Master of Science in Administration, Master of Science in Correctional Administration.

Center for Technology and Administration: Undergraduate Certificate in Data Processing; Graduate Certificate in Computer Systems, Operations Research, Scientific and Technical Information Systems, Research and Development, Management Information Systems, Environmental Systems Management; Associate Degree and Bachelor of Science Degree in General Studies, with a Technology of Management option; Master of Science in Technology of Management.

Church Management: Certificate

English Language Institute: Certificate

Government Public Information: Graduate Certificate

Housing and Urban Development: Graduate Certificate

Pride/AU Institute: Certificate

Public Relations: Graduate Certificate; Master of Science in Public Relations

Real Estate: Undergraduate Certificate

Science and Technology: Policy and Administration: Graduate Certificate

Social Sciences: Associate Degree and Bachelor of Science in General Studies

Teaching: Master of Science in Teaching

Urban Affairs: Graduate Certificate

Full-time Faculty

Professor: Gabriel D. Ofiesh, Martha Sager, Isaac D. Welt

Associate Professor: Ralph I. Cole, Robert P. Fox, Mary Ann Hood

Assistant Professor: Richard A. Bassler, Alvin Cohn, William H. Gammon, Walter J. Kennevan, Janet M. Malcolm, Jeffrey Reiman, James K. Rocks, Marvin I. Rosenberg, Jack Seigle, Eugene L. Shiro, Gary Weaver, Edward C. Smith, George Robert Bozzini

Instructor: Dana F. Czapanskiy, Emilio C. Viano

Master of Science in Teaching

Requirements

The Master of Science in Teaching is a professional degree designed to equip qualified candidates who are interested in the field of teaching. It is planned for full or part-time students who already have a Bachelor's degree in a field of concentration other than education, and who are seeking a second career in teaching.

In addition to the prerequisite courses or their equivalents, the program consists of a minimum of thirty graduate semester hours of professional training for teaching at the secondary level. A minimum of 12 graduate hours will be taken in the discipline in which the candidate desires to teach. The remainder of the credits will be taken in education as outlined in the curriculum below.

Comprehensive Examinations

To complete the degree each student must pass one comprehensive examination in a core field of education or, with special permission, in the student's discipline. The Master of Science in Teaching presently offers the following areas as disciplines: biology, chemistry, data processing, English, foreign languages, mathematics, physics and social studies.

Prerequisites

- A. Methods of Teaching in Secondary Schools
- B. Basic Statistics

Foundations of Education (6 hours)

- A. Historical and philosophical basis for education, to be satisfied by one course in philosophy of education and one course in history of education.
 21.510 Philosophy of Education (3) and
 21.511 History of Education in Western Culture (3) OR
 21.512 History of Education in the United States (3)
- B. Psychological and developmental aspects of classroom teaching, to be satisfied by the following courses:
 21.520 Advanced Psychology of Education (3)
 21.521 Mental Health in Schools (3)

Evaluation and Measurement in Education (3 hours)

- 21.522 Evaluation of Student Progress (3)
 (Prerequisite: 69.202 Basic Statistics, or equivalent)

Graduate Research Seminar (3 hours)

- 21.790 Educational Research (3)
- 21.791 Research Seminar in Education (3) (required only for those students who have completed student teaching or have had teaching experience.)

Practicum Area (6 hours)

To be satisfied by 21.792 In-Service Training: Internship in Education. (Prerequisite: one course in methods of teaching in secondary schools.) At least 6 weeks (or the equivalent) of student teaching with a supervising teacher at the secondary level.

Subject Matter Area (12 hours)

The student must select a minimum of 12 credits in a major academic area at the graduate level. A list of course offerings for each of the discipline areas is available upon request.

Certificate Program in Urban Affairs

The College of Continuing Education in cooperation with the School of Government and Public Administration, offers a certificate program in urban affairs for the student who does not want the broader and more demanding requirements of alternate graduate degree programs or who cannot meet the academic requirements of graduate study. In certain conditions certificate work may apply toward a graduate degree objective.

To be considered for admission to this program, a degree from an accredited institution is required.

To remain in the program, a student is required to earn at least a "C" in all courses.

Prerequisite Courses: 0-9 hours

- A. 53.653 American Federalism (3) (or 3 hours of undergraduate federalism or intergovernmental relations)
- B. 53.660 Political Institutions and Behavior (3) (or 6 hours of undergraduate political science exclusive of international relations)
- C. 54.610 Public Management (3) (or 3 hours of undergraduate public administration)

Required Courses: 15 hours

- A. 54.670 American Public Policy (3)
- B. 54.680 The Urban Polity (3)
- C. 54.682 Urban Politics (3)
- D. 54.684 Urban Planning (3)
- E. Plus one 3 hour elective from:
 11.685 Land Planning and Use (3)
 65.567 Urban Redevelopment (3) or other sociology or economics graduate courses relating to the Urban Affairs Program.

Certificate Program in Science and Technology: Policy and Administration

The College of Continuing Education in cooperation with the School of Government and Public Administration, offers a certificate program in urban affairs for the student who does not want the broader and more demanding requirements of alternate graduate degree programs or who cannot meet the academic requirements of graduate study. In certain conditions certificate work may apply toward a graduate degree objective.

To be considered for admission to this program, a degree from an accredited institution is required.

To remain in the program, a student is required to earn at least a "C" in all courses.

Foundation Courses: 0-6 hours

- 53.660 Political Institutions and Behavior (3)
(or 6 hours of undergraduate political science exclusive of international relations)
- 54.610 Public Management (3)
(or 3 hours of undergraduate public administration)

General Requirements: 6 hours

- 54.660 Science and the State (3)
- 55.513 Technology and Administration (3)

Electives: 12 hours

- 54.661 The Public Management of Science (3)
- 54.663 Science, Technology and International Affairs (3)
- 54.670 American Public Policy (3)
- 54.760 Seminar in Science, Technology and Government (3)
- 55.570 Management of Research and Engineering Organizations and Laboratories (3)
- 55.670 The Politics and Economics of Research and Development (3)
- 55.673 Planning and Control of Research and Development Operations (3) (Prerequisite: 55.570)

Certificate in Church Management

The Certificate in Church Management is awarded on satisfactory completion of an intensive program of academic study, related work experience, and applied research. Graduates of this program are members of The American University Alumni Association.

Two patterns of learning experiences, the "foundation requirements," and the "concentration area," together totalling 60 semester hour credits or an equivalence, are required of all candidates.

Additional information may be obtained from the Church Management Program, 204 McKinley Building, or call 686-2500.

Associate Degree in General Studies

Social Science Option: 16 courses

University Requirements: 2 courses

- 23.100 English Reading & Composition I
- 23.101 English Reading & Composition II

Departmental Requirements: 9 courses

Three courses each in *three* of the following areas:

anthropology, economics, government, history, international relations, political science, psychology, sociology, technology of management.

Related Courses: 5 courses

- A. Humanities electives: 3 courses
- B. Mathematics and/or science: 2 courses

Bachelor of Science in General Studies

Social Science Option: 32 courses

University Requirements: 2 courses

23.100 English Reading & Composition I

23.101 English Reading & Composition II

Departmental Requirements: 15 courses

Three courses each in *three* of the following fields (plus a minimum of six courses of upper level work in one of the elected social science areas):

anthropology, economics, government, history, international relations, political science, psychology, sociology, technology of management.

Related Courses: 5 courses

A. Humanities electives: 3 courses

B. Mathematics and/or science: 2 courses

Electives: 10 courses

Public Relations and Public Information

These certificate programs can be completed through fifteen hours of graduate course work as described below and are open to qualified students who already hold a Bachelor's degree. Those who have had no previous experience or course work in the field of communications may be required to take some additional undergraduate prerequisites. No comprehensive examination, research seminar, or thesis is required for these certificates.

A student in a graduate certificate program must maintain at least a "C" average in all courses taken. If a "D" grade is received in any course, the student must repeat that course or take an additional approved substitute. Waiver of foundation courses may be granted for exceptionally well qualified persons with comparable prior training or experience. Only three (3) hours of acceptable and approved credit at the graduate level may be transferred from other accredited institutions into the certificate program.

The College of Continuing Education (CCE) may offer admission to a graduate certificate program as an alternative for the applicant who applies for, and is not accepted for, admission to a graduate degree program. If a student who does not meet The American University's requirements for graduate admission completes a graduate certificate with at least a 3.2 grade point average, he will be considered for admission to a CCE degree program.

Graduate Certificate Program in Public Relations

Foundation Courses: no graduate credit

17.101 Writing for Mass Communication *Prerequisite:* Ability to type.

17.320 Reporting I *Prerequisite:* Ability to type.

General Requirements: 9 hours

72.540 Principles of Public Relations (3)

72.541 Publicity Writing (3)

72.542 Promotional Campaigns (3)

Field Requirements: 6 hours

17.501 Legal Aspects of Communication (3)

17.503 Mass Media in Society (3)

17.526 Advanced Feature Writing (3)

17.532 Publication Layout and Design (3)

72.543 Public Relations Abroad (3)

72.544 Public Relations and Government (3)

72.545 Public Relations in Business (3)

17.561 Advanced Writing for Broadcast (3)

72.525 Analysis of Propaganda (3)

Graduate Certificate Program in Government Public Information

Foundation Courses: no graduate credit

17.101 Writing for Mass Communication *Prerequisite:* Ability to type.

17.320 Reporting I *Prerequisite:* Ability to type.

General Requirements: 9 hours

17.501 Legal Aspects of Communication (3)

17.503 Mass Media in Society (3)

72.544 Public Relations and Government (3)

Field Requirements: 6 hours

17.526 Advanced Feature Writing (3)

17.532 Publication Layout and Design (3)

72.540 Principles of Public Relations (3)

72.541 Publicity Writing (3)

72.542 Promotional Campaigns (3)

72.543 Public Relations Abroad (3)

72.545 Public Relations in Business (3)

17.561 Advanced Writing for Broadcast (3)

72.525 Analysis of Propaganda (3)

Master of Science in Public Relations

This is a professional degree designed to meet the needs of the adult community employed in the many and varied areas of public relations.

Program

In addition to the prerequisites, the program consists of at least 33 graduate credit hours of course work. Twelve hours of "core" courses must be completed together with 15 hours in electives and 6 hours in an Independent Study Project.

Each student will be assigned a faculty advisor who will outline and approve the student's program. Courses and their sequence will be planned. The program must be completed with at least a "B" average for all graduate courses taken.

The student may complete all of his course work for this program at off campus education centers in the evening. In some instances, he may take courses in the day or evening on campus.

Comprehensive Examination

Satisfactory completion of *one* written comprehensive examination is required. This examination will be offered each semester as announced in the University Calendar in the *Schedule of Classes*.

Independent Study Project

In addition to satisfactory completion of the prescribed number of classroom courses, the Master of Science candidate in Public Relations will be required to complete an Independent Study Project. This project is designated an independent public relations promotion campaign of full-scale proportions, including such features as justification statement, cost-out analysis of each element, layout, copy for uses of all media, plans for evaluation, follow-up, etc. Originality, pertinence to current issues or programs, attention to details, quality of copy, and overall quality of the presentation will be governing factors as to the acceptability of the project as partial fulfillment of degree requirements. The project will be undertaken only with the approval of the faculty advisor, and the student must complete the project with a grade of "B" or better.

Prerequisites:

17.101 Writing for Mass Communication *Prerequisite:* Ability to type.

17.320 Reporting I *Prerequisite:* Ability to type.

(Waiver of these prerequisites may be granted for exceptionally well qualified persons with comparable prior training or experience.)

Core Requirements: 12 hours

- 17.501 Legal Aspects of Communication (3)
- 17.503 Mass Media in Society (3)
- 72.540 Principles of Public Relations (3)
- 72.541 Publicity Writing (3)

Electives: 15 hours

- 17.526 Advanced Feature Writing (3)
- 17.532 Publication Layout and Design (3)
- 72.542 Promotional Campaigns (3)
- 72.543 Public Relations Abroad (3)
- 72.544 Public Relations and Government (3)
- 72.545 Public Relations in Business (3)
- 17.561 Advanced Writing for Broadcast (3)
- 10.514 Business and Its Social Environment (3)
- 10.680 Regulation & Control of Business (3)
- 11.605 Promotion Management (3)
- 72.525 Analysis of Propaganda (3)
- 72.740 Seminar in Public Relations (3)

Special Project: 6 hours

- 72.690 Independent Study Project (In-Service Project) (6)

Additional electives may be substituted as determined by faculty advisor with the approval of the Dean of CCE.

Admission

A candidate applying for admission to the Master of Science in Public Relations program must have a Bachelor's degree from an accredited college or university. He must satisfy certain grade point averages as outlined in the *University Catalog*. Forms for application to the graduate program and the required letters of recommendation may be obtained from the Office of Graduate Admissions.

Provisional admission may be granted to those students who do not meet the minimum standards for admission. This may be accomplished by demonstrated academic performance in the completion of the Graduate Certificate Program in Public Relations or Government Public Information offered by the College of Continuing Education.

Center for the Administration of Justice*

The Center for the Administration of Justice offers undergraduate, graduate, in-service training and research programs. The Center was formed by a merger of the Law Enforcement and the Correctional Administration programs. Students originally enrolled in either of these programs will be given the option of completing their program under the regulations in force at the time of their admission or of selecting a new program of study subject to approval by the Dean of the College. New students will be admitted only to the programs described below. For more detailed information, write the Director of the Center for the Administration of Justice.

Undergraduate Certificate in the Administration of Justice

The certificate is designed primarily for part-time non-degree students employed by governmental agencies involved in the administration of justice, civil and criminal. The curriculum introduces the student to basic concepts underlying the system for the administration of justice in contemporary American society. Eight courses are required.

Foundation Requirements: 4 courses

- 23.100 Composition and Reading I
- 23.101 Composition and Reading II
- Two courses in the Social Sciences

* See College of Public Affairs

Administration of Justice Requirements: 4 courses

- 73.101 Introduction to the Administration of Justice I
- 73.102 Introduction to the Administration of Justice II
- 73.201 The Administration of Justice and the Community
- 73.220 Criminal Justice and the Constitution

Associate Degree in the Administration of Justice

This degree is designed for part-time undergraduate students employed by governmental agencies involved in the administration of justice, civil and criminal. The program introduces the student to many of the legal, social and political problems in the administration of justice and examines the relationship between the various components of the system for the administration of justice. Sixteen courses are required.

Foundation Requirements: 8 courses

Of the eight foundation courses required, five must be selected as shown below. The remaining three may be selected from any of the foundation areas.

- Composition and Reading I and II (2 courses)
- General Science, Logic, and Methodology (at least one course)
 - Biology
 - Chemistry
 - Earth Sciences
 - Introduction to Scientific Method
 - Logic
 - Mathematics
 - Physics

Humanities (at least one course)

- Art
- Communications
- English (excluding Composition and Reading)
- History
- Languages and Linguistics
- Music
- Philosophy and Religion
- Speech Arts

Social Sciences (at least one course)

- Anthropology
- Economics
- History (History courses may be counted in either humanities or social sciences, but not both)
- Sociology
- Psychology
- Political Science

Core Curriculum: 6 courses

- 73.101 Introduction to the Administration of Justice I
- 73.102 Introduction to the Administration of Justice II
- 73.150 Social Processes and Deviant Behavior
- 73.201 Administration of Justice and the Community
- 73.220 Criminal Justice and the Constitution
- 73.254 History and Philosophy of Criminology

Electives: 2 courses

Bachelor of Science in the Administration of Justice

The Bachelor's degree is designed both for students preparing for careers in the administration of justice and for students already actively engaged in such careers. The core curriculum gives

the student a basic foundation in the legal, social and political problems involved in the administration of justice and focuses attention on the relationships between various components of the existing administration of justice system. The major requirements take the student into specific problem areas while maintaining the student's breadth of view of the system as a whole.

Foundation Requirements: 8 courses

Of the eight foundation courses required, five must be selected as shown below. The remaining three may be selected from any of the foundation areas.

Composition and Reading I and II (2 courses)

General Science, Logic, and Methodology (at least one course)

Biology

Chemistry

Earth Sciences

Introduction to Scientific Method

Logic

Mathematics

Physics

Humanities (at least one course)

Art

Communications

English (excluding Composition and Reading)

History

Languages and Linguistics

Music

Philosophy and Religion

Speech Arts

Social Sciences (at least one course)

Anthropology

Economics

History (History courses may be counted in either humanities or social sciences, but not both)

Sociology

Psychology

Political Science

Core Curriculum in the Administration of Justice: 6 courses

73.101 Introduction to the Administration of Justice I

73.102 Introduction to the Administration of Justice II

73.150 Social Processes and Deviant Behavior

73.201 The Administration of Justice and the Community

73.220 Criminal Justice and the Constitution

73.254 History and Philosophy of Criminology

Major Requirements: 10 courses

Of the ten courses required, at least two courses must be selected from Group A, two from Group B, and one each from Groups C, D, and E. With prior approval by his advisor, a student may use appropriate selected topics courses and seminars or courses from other schools or departments of the University or from the Consortium to meet the above requirements.

A. Law Enforcement and Police Administration

73.210 Administrative Concepts in Law Enforcement and Public Safety I

73.211 Administrative Concepts in Law Enforcement and Public Safety II

73.221 Substantive Aspects of Criminal Law

73.310 Traffic Planning and Control

73.311 Introduction to Forensic Science

73.312 Drugs and Society

73.313 Organized Crime

73.315 White Collar and Commercial Crime

73.320 Criminal Procedure

73.321 Evidence

- 73.411 Problems in Forensic Science
- 73.510 The Police and the Political System
- 73.511 Innovation in Law Enforcement: Practice and Theory

B. Corrections

- 73.230 Contemporary Corrections in the United States
- 73.330 Institutional Corrections
- 73.331 Corrections in the Community
- 73.430 Administration of Correctional Institutions
- 73.431 The Prison Community
- 73.532 Innovation in Corrections: Practice and Theory

C. Judicial Administration

- 73.340 Judicial Administration—Criminal
- 73.341 Judicial Administration—Civil
- 73.440 Data Processing in Judicial Administration
- 73.540 Survey in Judicial Administration

D. Law and Society

- 53.150 The U. S. Political System
- 73.251 Alcoholism and Society
- 73.253 Juvenile Delinquency and Youth Crime
- 73.265 Introduction to the Logic of Law and Social Science
- 73.351 Individuals, Institutions, and Justice in America
- 73.352 Psychiatry and the Law
- 73.396 Selected Topics in the Administration of Justice
- 73.402 Administrative Justice
- 73.450 Prevention of Crime and Delinquency
- 73.453 Civil Disorder
- 73.454 Violence in America
- 73.455 Etiology of Crime
- 73.456 Crimes Without Victims
- 73.458 The Juvenile and the Law
- 73.463 The Free Press and the Administration of Justice
- 73.465 The American Character and Social Justice
- 73.501 The Concept of Justice
- 73.502 The Concept of Law
- 73.503 Concepts of Social Control
- 73.508 Seminar in the Management of Criminal Justice Agencies
- 73.550 Problems in the Exercise of Institutional Authority
- 73.552 Political Crime
- 73.554 Theories in Criminology
- 73.557 Victimology
- 73.580 Seminar in the Administration of Justice

E. Independent Study, Research and Internship

- 73.390 Independent Reading in the Administration of Justice
- 73.490 Independent Study Project
- 73.491 Internship
- 73.590 Independent Reading in the Administration of Justice

Electives: 8 courses

Electives may be chosen from any offerings of The American University or the Consortium.

Master of Science in the Administration of Justice

The Master of Science in the Administration of Justice (MSAJ) is designed for pre-service students preparing for careers in the administration of justice; for the continuing education of in-service personnel already actively engaged in such careers; or as foundation work for graduate students intending to pursue further graduate studies in subject matter areas of particular relevance to the administration of justice.

Admission

See p. 9 for procedures and regulations.

Requirements

See p. 26 for general graduate requirements for a Master's degree. The student will be required to complete 30 credit hours of graduate work, including a research requirement for six credit hours, and maintain an overall average of B. Twenty-four of the credits must be completed in residence at The American University. The student's program must be approved by his Graduate Advisor.

Eligibility

A background of relevant undergraduate preparation in the social, behavioral, and administrative or managerial sciences is preferred, but not absolutely required. Pertinent work experience will be considered. The student who is insufficiently prepared, in education or experience, may be asked to take specified undergraduate and/or graduate courses, with or without credit applicable to the graduate degree, depending upon the advice and recommendation of his Graduate Advisor.

MSAJ Course Work

In consultation with his Graduate Advisor, the student will be free to take any courses he chooses as he prepares for a general or specific occupational goal. It is expected that he will take courses offered by the Center, but he is also encouraged to take course work in other departments as well as in the Consortium. In order to receive the degree, however, he must complete at least 24 graduate credits, exclusive of the six required in the area of research.

Comprehensive Examination

Although the student may, in effect, design his own course work and graduate program, he will be required to take and pass a comprehensive examination designed to test his (a) general understanding of the concepts of justice; (b) general knowledge of the administration of justice, including law enforcement, judicial administration, corrections, and civil justice; and (c) intensive knowledge in one of the above substantive areas. The student will be urged to stipulate area 'c' early in his graduate career so that his Graduate Advisor may assist him in the preparation for the comprehensive examination.

Master of Science in Correctional Administration

The Master of Science in Correctional Administration is a professional degree designed to equip qualified candidates interested in various career areas of corrections for positions of leadership in this field. It is planned especially for those engaged in correctional work but is open to all qualified college graduates. The curriculum is presently under revision.

Center for Educational Technology

The Center for Educational Technology was organized in 1971 to provide professional studies and a research and development laboratory for the training of professional educational technologists and to explore the impact of the applications of technology to the education and training problems of our society.

The Center is administratively under the College of Continuing Education where it plans to offer both undergraduate and graduate certificate and degree programs.

Under the Consortium, the Center works very closely in support of the graduate Ph.D. program in Educational Technology at The Catholic University of America.

Center for Technology and Administration*

The Center for Technology and Administration was established in 1958 to provide a vehicle for the study of the effect of the evolving modern technology on administrative processes.

The discipline, Technology of Management, exists apart from business management, government and public administration, and the classical fields of mathematics and science. It evolved

* See College of Public Affairs.

from the acceptance of the electronic digital computer with its associated communications capabilities, as well as from the emergence of a broad and substantial quantitative theory of the properties, structure and flow of information. It approaches problems in all fields involving information transfer, transformation and storage. The discipline should be included in the education of those who will be involved in the management, or design, or development of large, complex systems involving people, resources and objectives. It includes but is not limited to the use of computers in systems analysis, systems dynamics, statistics, computer assisted instruction, command and control systems, data systems, information storage and retrieval, simulation and modeling and quantitative policy development.

Undergraduate Certificate Program in Technology of Management

Students in the Technology of Management certificate program may apply such a program to careers in the field of business or technology of management. The certificate is awarded upon completion of 8 courses distributed under the curriculum provided below. Up to an equivalent of 3 courses of comparable previous course work may be applied by transfer. A minimum of 5 courses of this program must be taken in residence. Students may transfer into the program grades of "C" or better from an accredited institution. The student must maintain a "C" average to be awarded the certificate.

Certificate Requirements: 8 courses

41.110 Fundamentals of Mathematics

69.202 Basic Statistics

10.206 Introduction to Accounting

55.310 Introduction to Data Processing

55.337 Problem Analysis

and three courses from:

55.333 Computer Programming: FORTRAN

55.334 Computer Programming: COBOL

55.335 Computer Programming: PL/I

55.331 Digital Computer Theory

55.360 Management and the Computer

Graduate Certificate Programs in Technology of Management

The College of Continuing Education offers the following programs for certificates in technology of management: computer systems, operations research, scientific and technical information systems, research and development management, management information systems, and environmental systems management.

These certificate opportunities are offered as specialized preparation for careers in these fields for the students who do not want the broader and more demanding requirements of graduate study. Under certain conditions certificate work may be applied toward the award of a degree.

These certificate programs are open to any student who has a Bachelor's degree from an accredited undergraduate institution.

Graduate Certificate Program in Computer Systems

Foundation Courses: no graduate credit

55.310 Introduction to Data Processing (See footnote)

55.333 Computer Programming: FORTRAN

OR

55.334 Computer Programming: COBOL

OR

55.335 Computer Programming: PL/I

55.411 Introduction to Management Mathematics

(or 41.101 or 41.111)

69.400 Managerial Statistics

(or 69.300)

General Requirements:

- 55.511 The Systems Approach (3)
- 55.530 Real-Time Systems (3)

Field Requirements: 9 hours

- 55.531 Computer Design (3)
- 55.632 Simulation and Modeling (3)
- 55.633 Programming Systems and Language (3)
- 55.635 Workshop in Computer Systems (3)
- 55.637 Workshop in Operating Systems (3)

Note: waived for the student who has had two years of job-related computer experience, and instruction or substantial experience in non-computer data handling systems.

Graduate Certificate Program in Operations Research

Foundation Courses: no graduate credit

- 41.222 Calculus II
- 69.400 Managerial Statistics (or 69.300)

General Requirements:

- 55.514 Operations Research Approach (3)
- 55.542 Probability and Statistics for Management Decisions (3)
- 55.544 Advanced Management Mathematics (3)

(not required for the student who has had 41.222 and 41.223 or equivalents within the last ten years)

Field Requirements: 9 hours

- 55.641 Methods of Operations Research I (3)
- 55.642 Methods of Operations Research II (3)
- 55.645 Workshop in Operations Research (3)
- 55.646 Cost Benefit Analysis (3)

Graduate Certificate Program in Scientific and Technical Information Systems

Foundation Courses: no graduate credit

- 55.310 Introduction to Data Processing (see footnote)
- 55.333 Computer Programming: FORTRAN (or 55.335 Computer Programming PL/I)
- 55.411 Introduction to Management Mathematics (or 41.101 or 41.111)
- 69.400 Managerial Statistics (or 69.300)

General Requirements:

- 55.512 Introduction to Cybernetics (3)
- 55.530 Real-Time Systems (3)

Field Requirements: 12 hours

- 55.550 Survey of Information Science & Technology (3)
- 55.650 Natural Language Data Processing (3)
- 55.651 Technical Information Machine Systems (3)
- 55.653 Concepts of Indexing and Abstracting (3)
- 55.655 Automated Library Systems (3)
- 55.656 Publication Techniques (3)

Note: waived for the student who has had two years of job-related computer experience, and instruction or substantial experience in non-computer data handling systems.

Graduate Certificate Program in Management Information Systems

Foundation Courses: no graduate credit

- 55.310 Introduction to Data Processing (see footnote)

- 55.333 Computer Programming: FORTRAN
OR
55.334 Computer Programming: COBOL
OR
55.335 Computer Programming: PL/I
55.411 Introduction to Management Mathematics
(or 41.101 or 41.111)
69.400 Managerial Statistics
(or 69.300)

General Requirements:

- 55.511 The Systems Approach (3)
55.530 Real-Time Systems (3)

Field Requirements: 9 hours

- 55.560 Systems Design for Business Operations (3)
55.561 Management of Automatic Data Processing Systems (3)
55.660 Management Information and Reporting Systems (3)
55.665 Workshop in Management Information Systems (3)

Note: waived for the student who has had two years of job-related computer experience.

Graduate Certificate Program in Research and Development Management

Foundation Courses: no graduate credit

- 69.400 Managerial Statistics
(or 69.300)

General Requirements:

- 55.511 The Systems Approach (3)
55.570 The Management of Research and Engineering Organizations and Laboratories (3)

Field Requirements: 9 hours

- 55.571 Technological Forecasting (3)
55.670 The Politics and Economics of R & D (3)
55.671 R & D in the Total Organization (3)
55.673 Planning & Control of R & D Operations (3)

Graduate Certificate Program in Environmental Systems Management

Foundation Courses: no graduate credit

- 55.310 Introduction to Data Processing (see footnote)
55.333 Computer Programming: FORTRAN
OR
55.334 Computer Programming: COBOL
OR
55.335 Computer Programming: PL/I
55.411 Introduction to Management Mathematics
69.400 Managerial Statistics
(or 69.300)

***** Plus an adequate background in basic undergraduate science courses

General Requirement:

- 55.511 The Systems Approach (3)

Field Requirements: 15 hours

- 55.580 Environmental Systems Analysis—A Survey Course (3)
55.581 Technological Systems Management of the Environment (3)

- 55.582 Administrative Systems Management of the Environment (3)
- 55.683 Pollution Abatement Potentials (3)
- 55.684 Environmental Management in Relation to Conservation (3)
- 55.685 Workshop in Environmental Systems Management (3)

Note: waived for the student who has had two years of job-related computer experience.

Note: In specifying the number of credit hours needed for a non-degree student to be awarded more than one certificate, completion of 55.511, The Systems Approach, and 55.530, Real-Time Systems, will be counted as credit toward only *one* certificate. Students desiring a second certificate in any other CTA field must complete 15 or 18 graduate hours in the second field. These 15 or 18 hours cannot include courses from any other CTA certificate program. An undergraduate who had taken 55.511 and 55.530, or any other graduate courses in CTA, will need 15 or 18 additional graduate credit hours to obtain a graduate certificate.

Associate Degree in General Studies

Technology of Management option: 16 courses

University Requirements: 2 courses

- 23.100 English Reading and Composition I
- 23.101 English Reading and Composition II

Departmental Requirements: 8½ courses

- 10.206 Introduction to Financial Accounting
- 10.207 Accounting Methods (half course)
- 10.201 Business Law
- 69.202 Basic Statistics
- 55.310 Introduction to Data Processing
- 55.337 Problem Analysis
- Plus any 3 courses from the following:
- 55.331 Digital Computer Theory
- 55.333 Computer Programming: FORTRAN
- 55.334 Computer Programming: COBOL
- 55.335 Computer Programming: PL/I
- 55.360 Management and The Computer

Related Courses: 5½ courses

Humanities Electives: 3 courses

Mathematics: 2 courses

- 41.110 Fundamentals of Mathematics
- 41.111 Calculus I

Electives: ½ course

Bachelor of Science in General Studies

Technology of Management option: 32 courses

University Requirements: 2 courses

- 23.100 English Reading and Composition I
- 23.101 English Reading and Composition II

Department Requirements: 15½ courses

- 10.206 Introduction to Financial Accounting
- 10.207 Accounting Methods (half course)
- 10.201 Business Law
- 10.302 Advanced Business Law
- 10.458 Management: Policy and Practice
- 10.491 Principles of Employee Relations
- 55.310 Introduction to Data Processing
- 55.331 Digital Computer Theory
- 55.333 Computer Programming: FORTRAN
- 55.334 Computer Programming: COBOL
- 55.335 Computer Programming: PL/I
- 55.337 Problem Analysis

55.360 Management and The Computer
55.411 Introduction to Management Mathematics
69.202 Basic Statistics
69.300 Business Statistics

Related Courses: 6 courses

Humanities Electives: 2 courses

Mathematics: 2 courses

41.110 Fundamentals of Mathematics

41.111 Calculus I

Social Sciences: 2 courses

19.100 Introduction to Economics

19.101 Selected Topics in Economics

Electives: 8½ courses

Recommend that the electives include one course in psychology and one course in sociology.

Advanced Placement

In accordance with the University's rules, freshman applicants may earn advanced standing credit which may be used toward fulfilling degree requirements.

Honors

Dean's Honor List

The names of students in the Bachelor of Science in General Studies program who achieve a quality-point index of 3.5 or higher are placed on the Dean's Honor List for that semester. Appearance on the list will be limited to (1) full-time students registered for a minimum of three courses and (2) part-time students registered for a minimum of three courses over a period of two consecutive semesters. A summer session may be included.

Honors Program

By student application during their junior year, and by selection by the Director of the Center for Technology and Administration, technology of management majors may take two honors courses (55.498 and 55.499) during their senior year. With successful accomplishment, such students will receive their Bachelor's degrees with Honors in Technology of Management. For selection, the student must have, in course work taken prior to the selecting decision, a 3.0 average in all course work and a 3.25 average in all course work taken under the requirements of the technology of management major. The two courses 55.498 and 55.499 will normally be taken in the order listed, one each semester. With the approval of the Director of the Center for Technology and Administration they may be taken concurrently.

Master of Science in Technology of Management

The College of Continuing Education, through its Center for Technology and Administration, offers the Master of Science in Technology of Management degree program.

Background

The Master of Science in Technology of Management is a professional degree designed to equip qualified candidates with a concentrated background in two of the six fields of Computer Systems, Management Information Systems, Operations Research, Scientific and Technical Information Systems, Research and Development Management, and Environmental Systems Management. Areas for concentrated effort may be selected from a wide spectrum of subject matter to satisfy the student's requirements.

The discipline, Technology of Management, exists apart from business management, government and public administration, and the classical fields of mathematics and science. It evolved from the acceptance of the electronic digital computer with its associated communications capabilities, as well as from the emergence of a broad and substantial quantitative theory of the properties, structure and flow of information. It approaches problems in all fields involving information transfer, transformation and storage. The discipline should be included in the education of those

who will be involved in the management, or design, or development of large, complex systems involving people, resources, and objectives. It includes but is not limited to the use of computers in systems analysis, systems dynamics, statistics, computer assisted instruction, command and control systems, data systems, information storage and retrieval, simulation and modeling and quantitative policy development.

Admission

Candidates applying for admission to the Master of Science in Technology of Management program must have a Bachelor's degree from an accredited college or university. He must satisfy certain grade point averages as outlined in the *University Catalog*. Forms for application to the graduate program may be obtained from the Office of Graduate Admissions.

Provisional admission may be granted to those students who do not meet the minimum standards for admission. This may be accomplished by demonstrated academic performance in the completion of one of the six Graduate Certificate Programs offered by the College of Continuing Education in conjunction with the Center for Technology and Administration.

Program

In addition to the prerequisites and foundation courses or their equivalents, the program consists of the completion of at least 33 graduate credit hours of course work distributed over two fields of concentration. These would be selected to prepare the student for the required two comprehensive examinations. At least 12 hours must be taken in one of the fields including the seminar in that field. The other field requirement may be satisfied by nine hours of graduate work. Twelve hours in each of both fields, including both seminars, is recommended.

Each student will be assigned a faculty advisor who will outline and approve the student's program. Courses and their sequence will be planned. If the thesis option is chosen, the faculty advisor may be the thesis director. The program must be completed with at least a "B" average for all the graduate courses taken.

Comprehensive Examinations

Comprehensive Examinations will be offered each semester for each of the fields. Degree candidates may take one or both of the examinations at any one semester offering. To complete the requirements for the degree, each student must pass two comprehensive examinations. They may be selected from:

- 55.63M Computer Systems
- 55.64M Operations Research
- 55.65M Scientific & Technical Information Systems
- 55.66M Management Information Systems
- 55.67M Research & Development Management
- 55.68M Environmental Systems Management

Special Programs

To satisfy the needs of students with special interests, special programs which would include one comprehensive field from the list above plus one other field may be arranged between the student and his advisor. The second comprehensive field may be a related one offered by one of the other schools and colleges of The American University. It could be a special one, designed by the CTA advisor in consultation with the student to meet the special needs of the student. It would be based on related graduate level courses offered by the University. For instance the Research and Development Management Comprehensive Field may be taken in association with that of the SGPA's Science, Technology and Government Program. All special programs are subject to the approval of the Director, CTA and the Dean of the College of Continuing Education.

Thesis

A thesis option is offered. This option satisfies either three or six credit hours depending on the extent of the research involved. This determination will be made between the student and his faculty advisor on the basis of the thesis proposal. It would be subject to the Director's and the Dean's approval.

Field Requirements

The candidate for the Master of Science in Technology of Management will select two fields from the six listed below. He will sit for two comprehensive examinations in the two fields selected.

No graduate credit will be given for the foundation requirements. However, they may be satisfied by previous equivalent course work or in some cases by experience.

55.63M COMPUTER SYSTEMS

Foundation Requirements

- 55.310 Introduction to Data Processing
- 55.333 Computer Programming: FORTRAN, or
- 55.334 Computer Programming: COBOL, or
- 55.335 Computer Programming: PL/I
- 55.411 Introduction to Management Mathematics
- 69.400 Managerial Statistics

General Requirements

- 55.511 The Systems Approach
- 55.530 Real-Time Systems (formerly Automatic Data Processing Systems)

Field Requirements

- 55.531 Computer Design
- 55.632 Simulation and Modeling (formerly Advanced Computer Applications)
- 55.633 Programming Systems and Language (formerly Evaluation of Software)
- 55.635 Workshop in Computer Systems
- 55.637 Workshop in Operating Systems
- 55.730 Seminar in Computer Systems

55.64M OPERATIONS RESEARCH

Foundation Requirements

- 41.222 Calculus II
- 69.400 Managerial Statistics

General Requirements

- 55.514 Operations Research Approach
- 55.542 Probability and Statistics for Management
- 55.544 Advanced Management Mathematics

Field Requirements

- 55.641 Methods of Operations Research I
- 55.642 Methods of Operations Research II
- 55.645 Workshop in Operations Research
- 55.646 Cost-Benefit Analysis (formerly 55.666)
- 55.740 Seminar in Operations Research
- 41.576 Mathematical Methods of Operations Research

55.65M SCIENTIFIC AND TECHNICAL INFORMATION SYSTEMS

Foundation Requirements

- 55.310 Introduction to Data Processing
- 55.333 Computer Programming: FORTRAN, or
- 55.335 Computer Programming: PL/I
- 55.411 Introduction to Management Mathematics
- 69.400 Managerial Statistics

General Requirements

- 55.512 Introduction to Cybernetics
- 55.530 Real-Time Systems (formerly Automatic Data Processing Systems)

Field Requirements

- 55.550 Survey of Information Science & Technology
- 55.650 Natural Language Data Processing
- 55.651 Technical Information Machine Systems
- 55.653 Concepts of Indexing and Abstracting

- 55.654 Workshop in Technical Information Handling
- 55.655 Automated Library Systems
- 55.656 Publication Techniques
- 55.750 Seminar in Scientific and Technical Information Systems

55.66M MANAGEMENT INFORMATION SYSTEMS

Foundation Requirements

- 55.310 Introduction to Data Processing
- 55.333 Computer Programming: FORTRAN, or
- 55.334 Computer Programming: COBOL, or
- 55.335 Computer Programming: PL/I
- 55.411 Introduction to Management Mathematics
- 69.400 Managerial Statistics

General Requirements

- 55.511 The Systems Approach
- 55.530 Real-Time Systems (formerly Automatic Data Processing Systems)

Field Requirements

- 55.560 Systems Design for Business Operations
- 55.561 Management of Automatic Data Processing Systems
- 55.660 Management Information & Reporting Systems
- 55.665 Workshop in Management Information Systems
- 55.760 Seminar in Management Information Systems

55.67M RESEARCH AND DEVELOPMENT MANAGEMENT

Foundation Requirements

- 69.400 Managerial Statistics

General Requirements

- 55.511 The Systems Approach
- 55.570 The Management of Research & Engineering Organizations & Laboratories

Field Requirements

- 55.571 Technological Forecasting
- 55.670 The Politics & Economics of R&D
- 55.671 R&D in the Total Organization
- 55.672 Scientific & Engineering Manpower
- 55.673 Planning & Control of R&D Operations
- 55.770 Seminar in R&D Management

55.68M ENVIRONMENTAL SYSTEMS MANAGEMENT

Foundation Requirements

- 55.310 Introduction to Data Processing
- 55.333 Computer Programming: FORTRAN, or
- 55.334 Computer Programming: COBOL, or
- 55.335 Computer Programming: PL/I
- 55.411 Introduction to Management Mathematics
- 69.400 Managerial Statistics
- Plus an adequate background in basic undergraduate science courses

General Requirements

- 55.511 The Systems Approach
- 55.530 Real-Time Systems (formerly Automatic Data Processing Systems)

Field Requirements

- 55.580 Environmental Systems Analysis—A Survey Course

- 55.581 Technological Systems Management of the Environment
- 55.582 Administrative Systems Management of the Environment
- 55.683 Pollution Abatement Potentials
- 55.684 Environmental Management in Relation to Conservation
- 55.685 Workshop in Environmental Systems Management
- 55.780 Seminar in Environmental Systems

English Language Institute

The English Language Institute offers intensive and semi-intensive courses in English as a foreign language, and review and advanced-level courses in English language topics for native speakers of English.

Descriptions of courses may be found in this *catalog* in the "Courses of Instruction" section. For details concerning fees and course dates and for application, contact:

English Language Institute
153 McKinley Building
Telephone: 686-2197

Note: Admission for foreign students to all English Workshops requires application through the English Language Institute, Room 153 McKinley. Application and testing fee is \$10.

- Intensive Courses (20-25 hours per week)
- English Workshop I: Intensive Basic English
- English Workshop II: Intensive Intermediate English
- Semi-Intensive Courses (15 hours per week)
- English Workshop III: High Intermediate English
- English Workshop IV: Advanced English
- Evening English Workshop
- Saturday English Workshop

A certificate of proficiency is issued to each student upon completion of any intensive or semi-intensive course.

University Courses:

- 74.097 Review of English Grammar I (No Credit)
- 74.098 Review of English Grammar II (No Credit)
- 74.100 Composition and Reading I (Course)
- 74.101 Composition and Reading II (Course)
- 74.190 English Workshop (Half Course)
- 74.390 Independent Reading Course in English (1/4 Course to Double Course)
- 74.396 Selected Topics in English for Foreign Students (Course)
- 74.490 Independent Study Project in English (1/4 Course to Double Course)
- 74.500 Reading and Composition for Graduate Students I (3)
- 74.501 Reading and Composition for Graduate Students II (3)
- 74.590 Independent Reading Course in English (1-6)
- 74.596 Selected Topics in English (3)
- 74.690 Independent Study Project in English (1-6)
- 74.696 Selected Topics in English for Foreign Students (3)

Note: 74.100 and 74.101 satisfy the University requirements in English for undergraduate students. Each counts as one course for undergraduate degree purposes.

Pride/American University Institute

The College of Continuing Education through the Pride/American University Institute offers an undergraduate certificate program to inner-city residents recruited by Pride, Inc., and other community organizations. The Institute brings together the resources of an urban university and established inner-city organizations. The Institute provides continuing education and a community

service component at the college level with a concentration in one of several areas of public and community service which students may elect on the basis of their particular interests and capabilities. The requirements for the certificate program are outlined below:

Required Courses

- 71.100 Language Skills Institute (half course)*
- 71.101 Communications I: Literary Criticism and Composition (course)
- 71.102 Communications II: Man and Society (course)
- 71.103 Philosophy of Communication: The Essay (course)
- 71.104 Philosophy of Communication: Critical Reading and Thinking (course)
- 71.105 Mathematical Skills (half course)
- 71.110 Fabric of Social Structure I: Psychology (course)**
- 71.111 Fabric of Social Structure II: Psychology (course)**
- 71.112 Fabric of Social Structure I: Economics (course)**
- 71.113 Fabric of Social Structure II: Economics (course)**
- 71.114 Fabric of Social Structure I: Sociology (course)**
- 71.115 Fabric of Social Structure II: Sociology (course)**

Advanced Certificate Courses

Business and Organization Management

- 71.210 Accounting Principles I (half course)
- 71.211 Salesmanship (half course)
- 71.212 Accounting Principles II (half course)
- 71.213 Accounting Principles III (half course)
- 71.222 Community Organization (course)
- 71.230 Consumer Education (course)
- 71.233 Techniques of Management (course)
- 71.534 Group Theory and Practice (course or 3 credit units)
- 71.535 Systems of Organization (course or 3 credit units)

Institutions and Society

- 71.221 Law, Repression and the Community (course)
- 71.223 Political Man and Society (course)
- 71.224 Development of Effective Oral Communication I (course)
- 71.225 Development of Effective Oral Communication II (course)
- 71.231 Lay Advocacy (course)
- 71.201 Black Heritage (course)
- 71.202 Social Dynamics (course)

Educational Systems

- 71.220 The Educational Institution (course)
- 71.232 Principles of Counseling (course)
- 71.440 Day Care Administration (course)
- 71.441 Child Psychology: Day Care Application (course)
- 71.442 Education in Day Care Schools (course)
- 71.443 Day Care Health Program (course)

*May be waived at the discretion of the Academic Counselor.

**Student may select any two sections to meet the Social Science requirement.

School of

Government and Public Administration

DEAN (ACTING)	A. Lee Fritschler
Assoc. Dean, Undergraduate Program (Acting)	Bruce F. Norton
Assoc. Dean, Graduate Program (Acting)	Glynn Wood
Director, Washington Semester Program	Nathaniel S. Preston

THE SCHOOL OF GOVERNMENT AND PUBLIC ADMINISTRATION emphasizes and uses the special opportunities of the Washington, D.C. location for the teaching and study of these subjects.

The School's undergraduate program will contribute an understanding of government and public affairs as an aspect of a broadly cultural education. It will prepare the American student for an enlightened role in American national and community affairs, or a foreign student who intends a comparable role in the country of his origin or adoption. This program may be a professional education for entrance upon a career in public affairs at a junior professional level. It will provide a solid and comprehensive foundation for the student who pursues further education before entering a career in public affairs or politics, governmental administration, or in teaching or research in these subjects.

Its graduate program is an opportunity for intensive academic or professional education for a career of teaching, research, or action in the fields of politics, government, or public administration. The master's and doctoral programs in government emphasize the contemporary view of the theory and methodology of political science, as well as the value goals and functioning processes of political systems and institutions. The master's and doctoral programs in public administration, public policy, and urban affairs emphasize the broad social and governmental context of public policy and public administration, the managerial dynamic and the new technological tools of its processes, with opportunities to specialize among these perspectives.

School of Government and Public Administration

Correspondence Directory: A. Lee Fritschler, *Acting Dean*

Bruce F. Norton, *Acting Associate Dean for Undergraduate Program*

Glynn Wood, *Acting Associate Dean for Graduate Programs*

Nathaniel S. Preston, *Director, Washington Semester Program*

Fields of Study

Political theory, American politics, comparative politics, and public policy.

Full-time Faculty

Professor: Robert P. Boynton, Robert E. Cleary, Chester B. Earle, A. Lee Fritschler, Charles H. Goodman, Royce Hanson, Lowell H. Hattery, Martin Meadows, Emmet V. Mittlebeeler, Nathaniel S. Preston, Edgar S. Robinson, Harold H. Roth, Morley Segal, Richard G. Smolka, Lois E. Torrence, Millidge P. Walker

Associate Professor: J. Carl Akins, Coralie Bryant, Jerome J. Hanus, Harvey Lieber, Howard E. McCurdy, Bruce F. Norton, David J. Peterson, Bernard H. Ross, Glynn L. Wood

Assistant Professor: David Cortland Brown, Richard A. Fehnel, Bertrand Y. Kobayashi, David Koehler, Ruth A. Lane, Diane S. Rothberg, Charles L. Ruttenberg, Donald Zauderer

Professor Emeritus: Richard M. Bray, George P. Bush, Earl H. DeLong (Dean Emeritus)

Bachelor of Arts and Bachelor of Science in Political Science

This program leads to the degree of Bachelor of Arts or Bachelor of Science in Political Science. It is available through registration in the School of Government and Public Administration (SGPA).

Admission and Retention Requirements

Requirements for admission to or continuation in the undergraduate program in this School are the same as for students in the College of Arts and Sciences.

University Requirements

Political science majors in SGPA are bound by the general University Requirements stated in the Academic Regulations Section of this *catalog*.

School or College Requirements

For political science majors who are registered in SGPA, the School has no additional requirements except the features of the Political Science major program as defined below.

Foreign Language Course Regulation

Undergraduate students majoring in the School of Government and Public Administration are not required to take a foreign language. However, if a student wishes, he may.

Graduate Record Examinations

The School of Government and Public Administration does not require its graduating seniors to take any portion of the Graduate Record Examinations. However, many graduate schools throughout the United States do require such examinations as a condition of consideration for admission. Graduating seniors who may later decide to undertake graduate study would be wise to take some or all of the tests of the Graduate Record Examinations. The Director of Testing and Guidance should be consulted for advice on which tests to take for the individual student's needs.

At the beginning of the fall semester, seniors who wish to take such examinations should write directly to The Educational Testing Center, Princeton, New Jersey, for information about the

times and places for taking such tests in the Washington, D.C. area. This information can also be obtained at The American University Counseling Office.

Political Science Major

Requirements

This program for the political science major is outlined here in four parts and given in detail in the full undergraduate curriculum following:

I. Required Courses (three courses)

- 53.100 Modern Government
- 53.150 American Government and Politics
- 33.201 Introduction to International Politics (an S.I.S. course)

II. Areas of Study (six courses selected from the following, including a requirement of at least one and not more than two "Topics" courses)

A. *Political Theory*

- 53.310 Early Political Thought
- 53.311 Modern Political Thought
- 53.312 Introduction to Political Inquiry
- 53.410 Topics in Political Thought

B. *American Politics*

- 53.320 Political Behavior
- 53.321 Congress and the Presidency
- 53.322 Bureaucracy and Administration
- 53.323 Law and the Political System
- 53.324 Metropolitan Politics
- 53.325 Politics of Afro-America
- 53.326 State Government and Politics
- 53.327 American Constitutional Development
- 53.420 Topics in American Politics

C. *Comparative Politics*

- 53.330 Comparative Politics of Industrial Societies
- 53.331 Comparative Politics of Agrarian and Industrializing Societies
- 53.430 Topics in Comparative Politics

D. *Public Policy*

- 53.340 Government and Social Policy
- 53.341 Civil Rights and Liberties
- 53.440 Topics in Public Policy

E. *Other special SGPA courses*

56.413, 56.414, and 56.415 The Urban Semester. (Available only by selection. All three units required if this is taken. Counts as three courses toward the general Bachelor's degree requirement of 32 courses, but only as two courses toward this political science major program.)

56.410, 56.411, and 56.412 The Washington Semester. (Available only by selection. All three units required if this is taken. Counts as three courses toward the general Bachelor's degree requirement of 32 courses, but only as two courses toward this political science major program.)

- 56.390 Independent Reading (credit as one course)
- 56.490 Independent Research (credit as one course)
- 56.395 Undergraduate Internships in Government and Politics (credit as one course)
- 56.396 Selected Topics (credited as specified when offered, normally as one course)
- 56.498 and 56.499 Senior Honors (counted as one course each)

F. *International Relations* (Courses offered by the School of International Service)

Political science majors may count up to three such courses, in addition to 33.103 or 33.201, as part of their major and related requirements. Students taking two SIS courses under major are limited to one SIS course under Related Social Sciences.

III. Related Course Requirements (seven courses):

Seven courses chosen from the fields of anthropology, economics, history, international

relations (see II F above), psychology, sociology, statistics and data processing. No more than two (2) courses may be taken in any one of the listed fields for application to the political science major requirement. Courses from other disciplines may be counted as related courses with the approval of Associate Dean or the student's advisor.

Honors Program

By student application, and by selection by the Associate Dean of SGPA during the student's junior year, The American University political science majors may take two honors courses (56.498, 56.499) during the second semester of the junior year and first semester of the senior year. With successful achievement, such students will receive their Bachelor's degrees with Honors in Political Science.

For selection, the student must have, in course work taken prior to the selecting decision, a 3.00 average in all course work, and a 3.25 average in all course work taken under the requirements of this political science major program structure. The two courses (56.498, 56.499) constitute this honors opportunity. They will normally be taken in the order listed, one each semester. With the approval of the Associate Dean of SGPA, they may be taken concurrently in the same semester.

Graduate Degrees

Degree Programs Available

The School of Government and Public Administration offers the following graduate degree programs:

- Master of Arts in Government
- Master of Public Administration
- Master of Public Administration in Urban Affairs
- Master of Public Administration in Public Policy
- Doctor of Philosophy in Government
- Doctor of Philosophy in Public Administration

General Program Concepts

The M.A. program is considered to be the beginning of graduate specialization and as a foundation to prepare for continuation into doctoral level study. To ensure competence in methodology, every entering M.A. student must take the six-hour course: 53.611 Conduct of Political Inquiry and Research I.

The M.P.A. programs are designed for those who need graduate work for objectives other than preparation for an academic or research-oriented career. These programs are fully academic in quality but prepare students with widely differing backgrounds with the substantive knowledge and technical skills for managing programs and institutions. The *Master of Public Administration* program provides the student with the fundamental concepts and tools of management as well as an understanding of the relationships between management concepts and public policy. The *M.P.A. in Urban Affairs* is an interdisciplinary curriculum for the preparation of urban administrators, researchers, and scholars. It includes the study of urban politics and administration and the opportunity for substantial work in related social science and legal fields. The *M.P.A. in Public Policy* program is designed to provide the student with the substantive conceptual foundations for policy analysis and evaluation as well as an opportunity for systematic inquiry into the impact of science and technology on both national and international communities. Students who complete an M.P.A. program will be well prepared to continue into doctoral work, if otherwise admissible, but will have to make up the requirement of the nine-hour bloc of methodology courses entitled *The Conduct of Political Inquiry and Research*.

The Ph.D. programs are intentionally theoretic in emphasis and orientation, in the sense that they are designed as preparation for graduate-level college teaching and research. Coincidentally, they are intensive professional specializations which apply to the operations of government and political affairs as well as to teaching and research.

Time Limits for Transfer of Credit

Unless it was part of a completed degree program, graduate work taken more than ten years before admission or readmission will not be applied or accepted by transfer.

Maintaining Matriculation

If any student has been inactive for more than five years, he may normally expect to have to retake comprehensive examinations, even if previously passed, and he may be required to retake some or all of the course requirements for this program. Maintaining Matriculation status may be achieved by annual registration, in the fall semester, through the Office of the Registrar.

Master of Arts and Master of Public Administration

General Requirements

See page 26 for general graduate requirements for the Master's degree program. The following requirements also apply for the SGPA Master's level programs.

Eligibility

Candidates applying for admission to the M.A. or M.P.A. programs are evaluated on a competitive basis. Normally this will be a B average or better in their last 60 hours of undergraduate course work. Subject to a 20% ceiling, provisional admission may be granted on a lower undergraduate record or on the basis of 12 hours with a better-than-B average in relevant graduate-level work.

For students who are not admissible to these Master's programs or who do not wish to seek a Master's degree, the College of Continuing Education offers a graduate certificate program in Urban Affairs. See CCE. For an applicant who has failed to meet the requirements for admission to a Master's program, an impressive performance in a certificate program will be a basis for reconsideration.

Minimum Course and Symposia Requirements

These Master's degree programs require a minimum of 33 and 39 graduate hours respectively, not including any courses which may be taken as foundation or prerequisite requirements.

For the MASTER OF ARTS: 53.611: *Conduct of Political Inquiry and Research—I* (six hours); three courses and one symposium in the first field of specialization and four courses or seminars in the second field of specialization (24 hours); one elective course (53.613: *Conduct of Political Inquiry and Research—II* is strongly recommended) (three hours); and for students without six hours of undergraduate political science, 53.660: *Political Institutions and Behavior* (three hours). Total—33 or 36 hours.

For MASTER OF PUBLIC ADMINISTRATION: 54.600: *The Administrative State* (6 hours); one course in Government and Public Policy (3 hours); 53.672: *Law of the Administrative Process* (3 hours); 53.610: *Research for Management* (3 hours); one course in American Government (3 hours); three courses and one symposium in the first field (12 hours); three courses or seminars in the second field with a B average (9 hours); and for students lacking the equivalent undergraduate work, 53.660: *Political Institutions and Behavior* (3 hours), plus three hours of graduate economics or sociology (or equivalent), and six hours of quantitative methods (or equivalent). Total—39-51 hours.

Note: The M.P.A. in Urban Affairs program is the same as the *Master of Public Administration* with these exceptions: six hours of graduate economics or six hours of graduate sociology and only 3 hours of quantitative methods; 54.680: *The Urban Polity* instead of *The Law of the Administrative Process*; 3 hours of an internship in place of the American Government course and the other 3 hours of the internship to be applied to the student's field of specialization.

Note: The M.P.A. in Public Policy program is the same as the *Master of Public Administration* with these exceptions: six hours of graduate economics or six hours of graduate sociology, only three hours of quantitative methods, and either 53.672: *Law of the Administrative Process* or 54.680: *The Urban Polity*.

M.A. and M.P.A. Comprehensive Examination Requirements

All M.A. and M.P.A. programs require two fields of specialization, with one written examination in the first field to be taken at the end of the student's program.

M.A. and M.P.A. Research Requirements

In all Master's degree programs, it is expected that the student will begin work on a research topic of interest to him and that he will continue that work until he takes the symposium in his first

field of specialization. At that point the instructor of the symposium will certify to the Associate Dean for Graduate Programs that the research paper is of B quality or better. If it is not, the student is expected to work on the paper concurrently with the symposium. To satisfy the symposium requirement, a grade of B or better must be received.

Advisory Relationships

Each full-time Master's degree student will consult with the Associate Dean for Graduate Programs for advice and assistance in his program. But the student, in consultation with the Associate Dean and faculty members, is expected to select a faculty advisor as appropriate to his interests and objectives.

Appellate Procedures: SGPA has a faculty-student committee which hears appeals by students from decisions made by faculty or administrators concerning academic regulations. See the Associate Dean for further information.

Doctor of Philosophy

General Requirements

See page 26 for the general University requirements for the Ph.D. degree. The following requirements, in addition, apply generally to the SGPA Ph.D. programs.

Application

Applicants for Ph.D. programs will normally be considered and admitted only for the fall term of each year. March 1 is the deadline for application for admission for the following September. Applicants must have taken the verbal and quantitative Graduate Record Examinations.

Preference will be given to applicants for full-time study, with increasingly selective admission for basically part-time study. While the highly qualified part-time Ph.D. student will be welcomed, he will be expected to devote one year to full-time course and seminar study at some point during the first three academic years after admission.

All applicants, and especially those who intend part-time effort, should be aware that these SGPA doctoral programs will be demanding undertakings. Only those who are very strongly motivated should apply.

The Criteria of Admission

The normal minimum for consideration: At least a 2.5 average on a 4.0 scale in the last 60 hours of undergraduate work, and a Master's degree with a better-than-B record. However, admission is granted competitively by selection of a limited number of the best applicants and the recent cut-off point on such admissions has been approximately a 3.5 average in a Master's program. For applicants who are exceptional in some compensating respect, provisional admission will occasionally be granted on records which do not meet these standards.

If a student has been admitted to the Master of Arts Program in the School of Government and Public Administration and if he fulfills the criteria for doctoral admission except for the Master's degree requirement, he may be admitted directly into the doctoral program by taking 53.611: *Conduct of Political Inquiry and Research—I* and 53.613: *Conduct of Political Inquiry and Research—II* and, in addition, passing a separate qualifying examination.

If an applicant is marginal by these standards, or if the School has accepted as many Ph.D. students as it currently has room for, the applicant may be offered admission to the related SGPA Master's program (even if he already has one Master's degree), with later reconsideration of Ph.D. admission on the basis of his new performance. In such cases, except for one Master's level comprehensive examination, the total program will be approximately the same whether in M.A./Ph.D. sequence or direct Ph.D. admission.

Advisory Relationships

Each doctoral degree program student will consult with the Associate Dean for Graduate Programs for advice and assistance in his program. However, each full-time student, in consultation with the Associate Dean and the faculty member(s) involved will select a faculty advisory committee. The initiative for establishing the advisory committee is expected to come from the student.

Appellate Procedures: SGPA has a faculty-student committee which hears appeals by students from decisions by faculty and administrators concerning academic regulations. See the Associate Dean for Graduate Programs for further information.

Foundation Course Requirements

A relevant academic foundation in undergraduate and Master's programs is preferred but not required. The minimum course and seminar requirements stated below presume such foundations. The student who comes without them will be required to take substantially more than such minimum requirements, including the possibility of special or undergraduate preparatory courses with no graduate credit.

Minimum Courses and Seminars

The doctoral programs in the School of Government and Public Administration have been developed to ensure the education of competent scholars, not to satisfy simply an arithmetic accumulation of credit hours. While the minimum requirement is 60 hours of graduate work, the more significant criterion is the adequacy of the student's preparation for his comprehensive examinations. This may mean the need for more than 60 hours of graduate work.

As a minimum, the Ph.D. student must satisfy the equivalent Master's degree requirements. All doctoral students must take the 9 hour bloc of courses entitled, *The Conduct of Political Inquiry and Research*. In addition, each student must show the equivalent of one graduate course in political philosophy and must take one symposium in each of his three examination fields. To satisfy the symposium requirement, a grade of B or better is needed.

Except for these requirements and the 60 hour minimum, each doctoral student will be the judge of his own need for any particular course in any of his fields.

Quality Requirement

An average of better-than-B in all graduate work is required. This is higher than the University requirement of 3.0 for required good standing and will normally be interpreted as a requirement of 3.25 or better.

Advancement to Candidacy

The student must apply for advancement to candidacy no later than the semester in which he completes 18 hours of graduate work in his doctoral program, including the bloc of courses entitled *Conduct of Political Inquiry and Research*. Passage of this 9 hour bloc of courses with grades of B or better and of an external examination over the material is the minimum qualification for advancement to candidacy. In addition, the student must maintain the quality requirement and he may be asked to sit for an oral examination. His program may be terminated at this point if the dean and faculty conclude that he does not show high probability of completing the program with high, not minimal, performance.

Doctoral Comprehensive Examinations

The comprehensive examination fields are listed below along with other programs of concentration. The student must take a written examination in each of three comprehensive examination fields and an oral examination which covers all three of the fields. One member of the student's advisory committee will sit on the student's oral examination as well as one member from each of his examination fields. This oral examination is entirely separate from the later oral defense of dissertation. It should be noted that the student is required to select a fourth field of concentration, which may or may not be from one of the listed examination fields. The student must take a minimum of 9 hours of graduate work in this field with a B average. Students are encouraged to select a field from outside SGPA.

Tools of Research

Two tools of research are required to be certified through proficiency examinations or by completion of specific courses as prescribed by the administering department. SGPA students must certify one tool, at least, before admission to comprehensive examinations is granted. The other tool must be certified before final approval of the dissertation proposal.

For the Ph.D. in Government, statistics is presumptively required as one of the two tools. This can be satisfied by passing the SGPA course and examination in *Quantitative Methods in Political Science*. The other tool may be a foreign language, mathematics or educational and psychological tests and measurements.

For Ph.D. students in Public Administration, statistics and mathematics are presumptively required as the two tools.

For strong reasons, the Dean may approve a substitution for the presumptive tool requirements.

Dissertation and Oral Examination

A dissertation is initiated by the submission of a dissertation proposal by the candidate and approval of the proposal by the Dean. The subject of the dissertation will normally be expected to lie within the boundaries of one of the candidate's four fields of specialization.

The basic standard is that of a high quality of original research directly relevant to the student's doctoral program. A proposal may be rejected for unacceptability of subject, inadequacy of the proposed concept and approach of the research, or because there is no full-time SGPA faculty member who is academically competent and available to supervise the project as proposed. If a candidate is unable, after three attempts, to obtain approval of a dissertation proposal, his candidacy may be terminated at that time for that reason.

After approval of the proposal, the dissertation is undertaken through registration for 12 hours of dissertation seminar and under the supervision of a dissertation committee appointed by the Dean. The dissertation committee determines whether or when the candidate has completed a dissertation which is acceptable for final oral examination. If, in the judgment of the committee, the candidate is unable to do so after full effort and opportunity, the committee may recommend to the Dean that his candidacy be terminated for this reason.

When the committee accepts a completed dissertation for oral examination, it may include in the candidate's examination the field of study of which the dissertation is a part. After the oral examination, the committee determines conclusively whether the dissertation and the examination are accepted as satisfactory completion of the candidate's Ph.D. program requirements, what further conditions must be met by the candidate for satisfactory program completion, or that the candidate's Ph.D. program should be terminated by reason of unacceptability of the dissertation or failure of the oral examination.

Comprehensive Fields for Specialization

These fields are listed here by number and title only. The descriptions of related courses are given in the Courses of Instruction section of this *catalog*. The fields may be offered for examination at both the master's and doctoral levels. The complete details of the student's patterns of requirements and choices are available from the Associate Dean for Graduate Programs.

Government

- 53.60 Political Philosophy
- 53.63 Comparative Government and Politics
- 53.65 American Government and Politics
- 53.67 Public Law

Public Policy and Administration

- 54.66 Science, Technology and Government
- 54.67 Government and Public Policy
- 54.68 Urban Affairs
- 54.70 Organizational Theory and Behavior
- 54.71 Governmental Management

Any degree student may take fields from either curricular pattern (*i.e.*, from either Government or from Public Policy and Administration) providing he meets the course prerequisites.

Special Note: Because The American University is a member of the Washington, D.C. Consortium of Universities, a degree student in SGPA may take courses at any of the universities with the prior approval of the Dean. In addition, the School of Government and Public Administration encourages students to take courses in related disciplines including, with the permission of the Associate Dean of SGPA, courses in the Washington College of Law. A degree student may use programs offered in other units of the University, or in units of the Consortium of Universities, as examination fields if offered as such by that teaching unit.

School of International Service

DEAN	Robert W. Gregg
Assoc. Dean	William C. Cromwell
Acting Assoc. Dean	Nicholas G. Onuf

Philosophy

THE SCHOOL OF INTERNATIONAL SERVICE is both a separate teaching and degree-granting unit and the coordinating center for international studies at The American University. It encompasses programs and fields in international relations, in foreign area and cross-national studies, and in policy analysis. Its approach is at once disciplinary, multidisciplinary and interdisciplinary. It draws upon many disciplines, including anthropology, economics, history, languages and linguistics, philosophy and religion, and political science, with the result that the faculty resources in international studies at The American University are much broader than the roster of those holding appointments in the School of International Service may suggest. All degree programs of the School require work in two or more of these disciplines, and in that sense the approach of the School is multidisciplinary. Moreover, the School consciously seeks to integrate the several disciplines and to approach international studies in an interdisciplinary manner. In these endeavors, the large and varied faculty of The American University in international studies is significantly complemented by the faculty resources of the Washington Consortium of Universities.

School of International Service

Correspondence Directory: Robert W. Gregg, *Dean*
William C. Cromwell, *Associate Dean*

Nicholas G. Onuf, *Acting Associate Dean*

Fields of Study

International relations theory, international law and organization, international communication, diplomatic history and international relations*, foreign policy analysis, international economic policy, economic development policy, comparative economic systems, history*, cultural anthropology*, comparative politics*, history of religion*.

*Area studies options available in these fields.

Full-time Faculty

Professor: Harold E. Davis (*University Professor*), John J. Finan, Arthur J. Goldberg (*University Professor of Law and Diplomacy*), Robert W. Gregg, Charles H. Heimsath, Warren S. Hunsberger, Marian D. Irish, (*Charles O. Lerche Professor of International Relations*), Kenneth P. Landon, Michael F. Lindsay, Albert D. Mott, Hamid Mowlana, F. Jackson Piotrow, Ralph L. Powell, Darrell D. Randall, Abdul A. Said, Samuel L. Sharp (*University Professor*), Absalom L. Vilakazi, Lawrence W. Wadsworth (*Grazier Memorial Professor of International Law*), Millidge P. Walker, Takehiko Yoshihashi

Associate Professor: Theodore A. Couloubis, William C. Cromwell, Linda Lubrano Greenberg, George L. Harris, Nicholas G. Onuf, Milton E. Osborne, Alan R. Taylor, Brady B. Tyson, Larman C. Wilson

Assistant Professor: Steven H. Arnold, Duncan L. Clarke, Calvin L. DePass, Gary D. Hoggard, Douglas L. Johnson, Richard Van Atta, Glynn L. Wood

Professor Emeritus: Mary E. Bradshaw, W. Wendell Cleland, William Y. Elliott (*University Professor Emeritus*), Ralph H. Gabriel (*University Professor Emeritus*), Ernest S. Griffith (*University Professor Emeritus*), Pitman B. Potter, Harold M. Randall, Durward V. Sandifer

Undergraduate Degrees

The undergraduate program of the School has been designed to offer the student a broad foundation in the liberal arts, a flexible specialization in international studies, and an experimental curriculum. The School offers the Bachelor of Arts degree with a major in international studies, and jointly with the Department of Language and Foreign Studies of the College of Arts and Sciences, a Bachelor of Arts in Language and Area Studies.

Admission

In addition to the standards and procedures pertaining to undergraduate admission at The American University, candidates for admission to the School of International Service must present evidence of excellent personal and academic qualifications. Eligibility for freshman admission consideration normally requires (a) at least a "B" average in secondary school, (b) a rank in the top quarter of the secondary school graduating class, and (c) College Entrance Examination Board Scholastic Aptitude Test scores totaling at least 1150. Other factors considered are leadership qualities, character and personal interests. Approximately 75 students enter the freshman class. Students from other regionally accredited collegiate institutions and students in other majors at The American University who have completed the freshman year must maintain at least a cumulative "B" average in order to be eligible to apply for transfer to the School of International Service.

Undergraduate Counseling

During the first semester, all freshmen and new transfer students may participate in a special

lecture-seminar program designed to acquaint students with the School of International Service faculty as well as the variety and scope of the field of international studies. After attending this program, each student may select one of the members of the SIS faculty to act as his or her permanent advisor, to help in planning an appropriate program of study. Counseling is also provided by a selected group of undergraduates which supplement the faculty advisor system.

Bachelor of Arts in International Studies

A single flexible major in international studies is offered for all students enrolled exclusively in the School of International Service. This major acquaints the student with three facets of international studies: international relations, foreign area and cross-national studies, and foreign policy analysis. In addition, it enables students to concentrate on any two of these three general fields.

Course Requirements

All students pursuing this degree are required to complete with a grade of "C" or above the following foundation courses:

33.151-152	Introduction to Western Tradition I & II
33.101	Introduction to Political Concepts
19.100	Introduction to Economics

In addition, all students pursuing this degree are required to complete with a grade of "C" or above the introductory course in each of the three fields into which the degree program is divided, plus an additional three courses in each of two of those fields. The three fields and the prerequisite course in each, as well as further options and distribution requirement within each, are as follows:

International Relations. 33.201 Introduction to International Politics. If this field is selected as one of the fields of concentration, three additional courses must be taken.

Foreign Area and Cross National Studies. 33.241-8 Introduction to (Area) or an equivalent history course. If this field is selected as one of the fields of concentration, three additional courses must be taken, at least two of which must be in one of the following disciplines: economics, political science or anthropology.

Policy Analysis. 33.281 Introduction to Policy Analysis. If this field is selected for further concentration, three additional courses must be taken, at least two of which must be concerned with foreign policy analysis.

Foreign Language and Quantitative Skills Requirements. Students are required to demonstrate competence either in one modern foreign language or in statistics and quantitative analysis. Ideally, both kinds of skills should be cultivated by students planning careers in international fields. The foreign language requirement may be satisfied either by examination or waiver (administered by the Department of Language and Foreign Studies of the College of Arts and Sciences), or by course work through the intermediate level. The statistics and quantitative analysis option may be satisfied either by examination (administered by the School of International Service) or by successful completion of 33.307 Quantitative Approaches to International Politics or 19.310 Introduction to Econometrics, plus an additional research paper or "methods" course approved by the School of International Service.

Bachelor of Arts in Language and Area Studies

This degree is administered jointly by the School of International Service and the Department of Language and Foreign Studies of the College of Arts and Sciences. It is the only undergraduate degree offered by The American University which permits a true area specialization, including intensive training in the language of the area.

Programs of Study

The student may choose one of five different programs of study, depending on his language and area interest:

- A. Russian—USSR
- B. Spanish—Latin America
- C. French or German—Western Europe

- D. Hindi, Indonesian, Thai or Vietnamese—South and Southeast Asia
- E. Chinese or Japanese—East Asia

Course Requirements for A,B and C

Prerequisites

Elementary and intermediate language of the area, or the equivalent.

Required Courses

1. Conversation and Composition I & II (of an appropriate language)
2. Civilization I and II (in the appropriate language)
3. Two (2) courses in the history of the area, or one such course and one course in *Introduction to (Area)* (33.241-8)
4. Selection of two (2) of the following four-course sequences, which may include appropriate topics courses and/or colloquia taught in the foreign language. (Each sequence must be approved in advance.)

Anthropology: 3.201, plus three additional courses

Economics: 19.100, plus three additional courses

History: four courses in addition to those described in (3) above

International Relations: 33.101, 33.201 plus two additional courses

Political Science: 33.101 plus three additional courses

Literature of Area or Second Foreign Language: four courses

5. Senior Interdisciplinary Area Seminar

Course Requirements for Programs D and E

Required Courses

1. Elementary Language (of the area) I & II.
Intermediate Language (of the area) I & II.
2. Two (2) courses in the history of the area, or one such course and one course in *Introduction to (Area)* (33.241-8)
3. Selection of three (3) of the following three-course sequences. (Each sequence must be approved in advance.)

Anthropology: 3.201, plus two additional courses

Economics: 19.100, plus two additional courses

International Relations: 33.101, 33.201 plus one additional course

Philosophy and Religion: three courses

Political Science: 33.101 plus two additional courses

4. Senior Interdisciplinary Area Seminar

Graduate Degrees

The graduate program of the School embraces Master of Arts degrees in International Studies, Language and Area Studies, and International Communication, the latter two in conjunction with other teaching units of the University, and a Doctor of Philosophy in International Studies. The School of International Service offers graduate degrees which require work in a minimum of two academic disciplines, but which encourage an interdisciplinary approach to international studies. It is the aim of the School to provide sound preparation in the substantive, theoretical and methodological aspects of international studies, with the understanding that such training is germane to academic careers and to professional careers in both public and private sectors.

Admission

Master's Degrees. Admission to graduate study in the School of International Service is limited to students who have earned at least a "B" average in a relevant undergraduate major as a part of a Bachelor's degree earned at an accredited institution. A relevant major is defined as a minimum of twenty-four (24) semester hours in subjects deemed appropriate to the degree program selected. Successful applicants who lack twenty-four semester hours of relevant courses will

be expected to complete additional work in the form of background deficiencies which are normally determined at the time of admission. All applicants for the Master's degree programs (except foreign students) are required to take the Aptitude Section of the Graduate Record Examination. All applicants must supply at least two letters of reference from qualified persons capable of evaluating both their undergraduate performance and their suitability for undertaking graduate study in the chosen field.

Applicants for Master's degree programs (full or part-time) will be considered for admission for any fall, spring, or summer term. However, fall admission is preferred and is to the student's advantage inasmuch as course scheduling is programmed to the needs of students beginning in the fall semester.

Ph.D. in International Studies. Applicants for the Ph.D. degree must possess a Master's degree, or its equivalent, earned in a relevant field from an accredited institution with a cumulative average in all graduate work of substantially higher than "B." Applicants (except foreign students) are required to take the Aptitude Section of the Graduate Record Examination. Applicants must supply at least two letters of reference from qualified persons capable of evaluating both their graduate performance and their suitability for undertaking doctoral level study.

Applicants for the Ph.D. degree will be considered and admitted only for the fall semester of each academic year. March 1 is the deadline for receipt of applications and supporting materials. Only the most highly qualified applicants will be selected for admission to the Ph.D. program. Though applicants for part-time doctoral study are eligible for admission, such students are strongly encouraged to devote at least one academic year of full-time study during the course of their program.

Graduate Counseling

Each graduate student is assigned a faculty advisor, appropriate to his expressed academic interests, upon notification to the School of his intent to accept his admission. The faculty advisor is responsible for working closely with the student in planning his degree program and assisting him in deriving maximum advantage from the graduate study opportunities afforded by The American University and the Washington Consortium of Universities. During his first semester the student should develop with his advisor a general program plan and consult at least once a semester thereafter regarding course selections and other aspects of his developing graduate study interests. The Associate Dean may also be consulted regarding any academic or administrative matters pertaining to the student's program.

Advancement to Candidacy

Advancement to candidacy is a formal evaluation and planning stage which takes place after partial program completion and before the student is approved to undertake his comprehensive examinations. It represents an opportunity for the student to formally specify his degree program aims and provides an occasion for the School to evaluate the student's graduate record and degree objectives in light of his acquired proficiency, interests, and appropriate program requirements. Advancement to candidacy is a discretionary act which takes place upon completion of specified requirements and is a condition for further graduate study.

Master's degree students must apply for advancement to candidacy when they have completed between twelve (12) and eighteen (18) hours of graduate work at The American University (with an average of "B" or better), have completed all deficiencies specified at the time of admission, and have made up all incomplete course work. If at the end of eighteen hours, or at any time thereafter, the student's average is less than "B," he is subject to dismissal from the University.

When eligible for advancement to candidacy, the student designates his comprehensive examination fields and tool of research in consultation with his faculty advisor. He then files the appropriate form, endorsed by his faculty advisor, with the Office of the Associate Dean. Students who plan to apply for comprehensive examinations must apply for advancement to candidacy at least one month prior to the announced deadline.

Doctoral degree students must apply for advancement to candidacy no later than the end of the semester in which eighteen (18) hours of graduate work will have been completed in residence beyond the M.A. degree and subsequent to admission to a doctoral program. Any incomplete work and course deficiencies specified at the time of admission must be completed by this time. An average of substantially better than "B" in all doctoral level course work is required for advancement to candidacy. A student who is ineligible for advancement to candidacy at this time will not be permitted to continue further in his doctoral program.

In addition to the foregoing, the following steps and requirements must be accomplished in order to qualify for advancement to candidacy for the doctorate:

1) The student must submit an application for advancement to candidacy, prepared in consultation with and endorsed by his faculty advisor, which outlines in detail his doctoral program of study. The application must include a specification of fields for comprehensive examination and proposed tools of research. In addition, the student must include a carefully reasoned statement, approved by his advisor, which elaborates his major focus of specialization. This may be a sub-field of a broader area of interest or discipline or may cut across and tie together two or more disciplines. This statement should relate directly to the student's course work program and one or more of his comprehensive examination fields.

2) The application for advancement to candidacy is to include a description, in general terms, of the student's intended dissertation topic. Proposed tools of research must be justified in terms of their appropriateness to the dissertation topic or to other aspects of the student's research interests which have constituted an integral part of his program.

3) Each doctoral student must pass an oral qualifying examination in order to be eligible for advancement to candidacy. The purpose of the qualifying examination is to determine the prospective candidate's developing competence and qualifications in the general field of international studies and particularly in his area(s) of specialized interest and chosen fields for comprehensive examinations. Though not intended to test fully developed doctoral level field proficiency, the examination will seek to determine the student's qualities of mind, subject matter knowledge, and growth potential for the purpose of evaluating his suitability for continued study toward the doctorate. The qualifying examination will be conducted by at least three members of the faculty appropriate to the student's academic interests. If a student fails to pass the qualifying examination he may petition for a retake which, if granted, must be completed within nine (9) months.

A doctoral student's eligibility for advancement to candidacy will be determined by the foregoing considerations and will take into account the advice and recommendations of the faculty with whom the student has worked. Advancement to candidacy represents a major event in the student's graduate career and should be approached with careful planning and preparation.

Transfer of Credits

Requests for transfer of graduate credits (minimum grade of "B") from other accredited institutions are considered at the time of advancement to candidacy. In all cases the acceptability of transfer credit requests will be determined by the relevance of the work to the student's graduate degree program. Normally, an M.A. program or other graduate work completed more than 8 years prior to the semester of admission will not be considered for transfer toward a graduate degree in the School of International Service.

Subject to the above stipulations, an M.A. student enrolled in a 33 semester hour program may request transfer of up to 9 semester hours toward his degree. An M.A. student enrolled in a 30 semester hour program may request transfer of up to 6 semester hours toward his degree. A doctoral student may transfer up to 30 semester hours, leaving a minimum of 30 semester hours of required doctoral residency plus 12 hours credit allowable for the dissertation. In the case of doctoral students, previously earned M.A. credits will be accepted toward the doctorate in proportion to their relevance to the student's overall graduate program as determined by the selection of comprehensive fields and dissertation subject. Approved courses taken through the Washington Consortium of Universities count as residence credit.

Comprehensive Examinations

Fields for comprehensive examination are formally designated by the student when he applies for advancement to candidacy and are selected in accordance with the field options applicable to the student's degree program. However, the student is encouraged to select his fields as early in his program as possible so as to facilitate proper course planning in consultation with his faculty advisor.

Eligibility: A student must be advanced to candidacy in order to be eligible to take the comprehensive examinations. In addition, all courses preparatory for the examination(s) to be taken, exclusive of the appropriate research requirement, must be completed or in progress during the semester in which the examination(s) are to be taken.

Scheduling: SIS comprehensive examinations are administered during the fall and spring semesters of each academic year and during the summer session. Applications for comprehensive examinations must be submitted to the Associate Dean prior to the posted deadline. M.A. students who have not been advanced to candidacy must apply for advancement at least one month prior to

this deadline even if the minimum course work hours are still in progress. Doctoral students must apply for advancement to candidacy at least 6 weeks prior to this deadline.

Completion Requirements: Each M.A. comprehensive examination will be written and of 4½ hours duration. For doctoral candidates, three examinations, including International Relations Theory, shall be written and of 4½ hours duration. The fourth examination shall be oral with the field choice at the discretion of the student. In the case of Ph.D. candidates, comprehensive examinations must be taken or commenced within one calendar year following completion of all course residence requirements for the degree. Examinations may be taken either within a single semester or in two consecutive semesters.

Retakes: If a student fails one or more comprehensive examinations, he may petition for a retake to be completed within two years. Normally, only one retake is permitted. If a second retake effort is granted, the student will be required to retake his entire set of examination fields.

In Absentia Examinations: Students are discouraged from taking comprehensive examinations *in absentia*. Such applications will be approved only in exceptional circumstances.

Doctoral Dissertation

The doctoral dissertation is accomplished under registration for twelve (12) semester hours of doctoral dissertation supervision. The requirement is fulfilled by the completion of an acceptable dissertation and by a successful defense of the dissertation in a final oral examination. The basic dissertation standard is that of a high quality of original research in a subject which is directly related to the student's doctoral program emphasis.

Though the student is asked to present a general statement of his dissertation subject plans when he applies for advancement to candidacy, the formal proposal is presented for acceptance and faculty committee appointment only after all comprehensive examinations have been successfully completed. Both tools of research must be certified prior to formal topic acceptance. Registration for dissertation supervision credits should be accomplished only after all comprehensive examinations have been completed.

After the candidate has completed his comprehensive examinations, he and his committee chairman (or faculty advisor if a committee has not been appointed) shall be required to file a dissertation progress report with the Dean for Graduate Studies and Research every semester. At the time these reports are submitted, the candidate may request a meeting of the dissertation committee to discuss his progress. Dissertation committees are obliged to meet with candidates upon such request. Failure on the part of the candidate to submit such a progress report for two consecutive semesters constitutes termination of the student's matriculation.

Quality Requirement

Master's students are expected to maintain at least a "B" average in all graduate course work taken as a part of the degree program. If a student has not maintained a "B" average by the time of normal eligibility for advancement to candidacy, or if his average falls below "B" at any time thereafter, he shall be subject to dismissal from the University.

Doctoral students are expected to maintain a substantially better than "B" average in all graduate work taken at the doctoral level. Normally this will be interpreted as a minimum 3.25 average on a 4.0 scale. A doctoral student who has not attained the minimum average by the time of normal eligibility for advancement to candidacy will not be permitted to continue further in his doctoral program. Should his average fall below the minimum requirement at any time after advancement to candidacy, he shall be subject to dismissal from the University.

In the case of both Master's and Doctoral students, the minimum quality averages described above shall constitute minimum quality requirements for graduation.

Statute of Limitations and Leaves of Absence

Master's: All work for the Master's degree must be completed within three years from the date of the first registration in a graduate degree program.

Doctorate: All work for the Doctorate must be completed within five years from the date of the first registration as a doctoral student.

General: In cases where prerequisites or background deficiencies are assigned, the Statute of Limitations will be automatically extended in accordance with the semester time required to complete the additional requirements. Upon written advance petition to the Associate Dean, a leave of absence may be granted for a maximum of three years for reasons deemed appropriate by the Associate Dean. In such cases the student will be allowed to resume his graduate program under the degree requirements existing at the time of his initial admission, taking into account possible adjustments which may be necessitated by curriculum changes in the School. However, a leave of

absence will not be allowed to affect the requirement for doctoral students that comprehensive examinations must be taken within one year of completion of residence requirements.

Readmission

A student who is not formally enrolled in the University for two consecutive semesters (summer excluded) must apply for readmission. Readmission to a degree program may be granted *once* for a maximum period of three years in light of the requirements of the particular degree in effect *at the time of readmission*, except as noted above under formal leave of absence provisions. Students who are readmitted following an authorized leave of absence must complete all program requirements within the normal time period as extended by the leave of absence.

Maintaining Matriculation

The University requires students who have begun their graduate program to register for at least the fall semester of each academic year until they complete their entire program. Therefore if a student does not register for course work, thesis or dissertation supervision, or comprehensive examinations during the fall semester he must register in the fall semester of each year under the designation .099 Maintaining Matriculation (no credit) and pay the required fee.

Comprehensive Examination Fields

The School of International Service offers the following fields for comprehensive examinations at the Master's and Doctoral levels.

33.001 *International Relations Theory*

This field embraces theories of international relations and systematic international politics. It is required of all doctoral students.

33.021 *International Law and Organization*

This field focuses on institutionalized modes of interstate relations.

33.051 *International Communication*

This field examines communication in interstate relations from the perspective of the behavioral sciences. It is offered cooperatively by the Department of Communication and the School of International Service.

33.061 *Diplomatic History and International Relations*

- A Latin America
- B Western Europe
- C USSR
- D East Asia
- E Southeast Asia
- F South Asia
- G Middle East
- H Africa

These fields are offered cooperatively by the Department of History and the School of International Service. The distribution of courses between the two units will vary from one geographical region to another, but at least one course must emphasize international relations prior to the contemporary era. These fields are available with an area specialization, but may be offered only in areas where The American University and the Washington Consortium of Universities provide a program of study. Currently approved area fields are listed above.

33.081 *Foreign Policy Analysis*

A joint undertaking of the School of Government and Public Administration and the School of International Service, this field is concerned with the processes whereby policy is made and with the interrelationship of domestic and foreign policies. Although essentially concerned with American policy, it may be used to study foreign policy comparatively.

53.63 *Comparative Government and Politics*

A joint field, presented by the School of Government and Public Administration and the School of International Service. The field encompasses the cross-national study of political institutions, political processes, political behavior and political style.

19.09A International Economic Policy

This field is offered by the Department of Economics with the support of the School of International Service. It is concerned with international trade and finance, and may be used to study trade and investment policy.

19.07A Economic Development Policy

Offered by the Department of Economics, with the support of the School of International Service, this field focuses on the economics of development. Area emphases are available, supplementing theory courses.

19.011 Comparative Economic Systems and Soviet-Type Economies

Offered by the Department of Economics, with the support of the School of International Service, this field emphasizes comparative economic organization and institutions, with special attention to industrial economies. Area emphases are available, supplementing theory courses.

29.0 History

The Department of History offers graduate programs with the support of the School of International Service in several areas. The specific content of the field will vary, depending on the area specialization. The History of an area may be offered only where The American University together with the Washington Consortium of Universities provides a program of study. (See Department of History for area comprehensive fields.)

3.022 Cultural Area Analysis

The Department of Anthropology offers graduate programs with the support of the School of International Service in several areas, with prerequisite course work in ethnology. The specific content of the field may vary with the area specialization. The culture of an area may be offered only where The American University together with the Washington Consortium of Universities provides a program of study.

47.003 History of Religion

The Department of Philosophy and Religion offers this field with the support of the School of International Service; it focuses on non-Western religions, and is appropriate for the study of Asian areas.

Additional Fields

In appropriate cases, by petition, a field such as International Business, Public Administration, World Human Needs, or Philosophy may be offered as an elective field. In such cases, the field must be recognized by the department or school in which course work is offered, it may not be substituted for required fields, it must have a demonstrated relevance to the remainder of the student's graduate program, and it must receive the approval of the School of International Service.

Master of Arts in International Studies

The Master of Arts in International Studies is designed to prepare students for professional careers in the public or private sectors, both in the United States and abroad, and for subsequent doctoral work and careers in teaching.

Minimum Course Requirements

Thirty-three (33) hours of graduate credit is required for the Master of Arts degree. Of these, six (6) hours must be in economics and six (6) hours in political science, as follows, unless the student can pass equivalency examinations, in which case these requirements may be waived.

Economics: 19.603 Introduction to Economic Theory (3 hours), plus a course in international economics, economic development or comparative economic systems.

Political Science: 53.611 Conduct of Political Inquiry and Research (6 hours).

Comprehensive Examination Requirements

Two written comprehensive examinations are required as follows:

- a. One of the following: International Relations Theory, Foreign Policy Analysis, International Law and Organization, International Communication, Diplomatic History and International Relations (with area specialization);

- b. A second from (a) above or from the following: Comparative Government and Politics, International Economic Policy, Economic Development Policy, Comparative Economic Systems and Soviet-type Economies, History (with area specialization), Cultural Area Analysis (with area specialization), History of Religion (with Asian area specialization).

If both fields are in the same geographical area, an integrated area seminar is highly recommended. No specified number of courses is required per comprehensive examination field. However, a field is usually defined, for purposes of the comprehensive examination at the Masters level, by the content of any introductory graduate course in that field plus two or three additional courses (thus nine to twelve hours of course work or its equivalent in informal study is the customary preparation).

Research Skill Requirements

Candidates for this degree must pass a tool of research examination in one modern foreign language, or in statistics, or in another approved quantitative tool. In the case of a modern foreign language, the proficiency required for European languages is "3-level," translation only, and for South and Southeast Asian languages "2-level," translation only, according to the standards of the Foreign Service Institute of the Department of State. Examinations are administered by the Department of Language and Foreign Studies. If East Asian languages are offered the requirement is six hours of language training plus a "language and culture" course where available.

The optional research tool requirement in statistics may be satisfied by examination. Appropriate preparatory coursework, if needed, consists of 53.614: Quantitative Methods in Political Science (*prerequisite*: 53.611: The Conduct of Political Inquiry and Research or a foundation in basic statistics). For information about certification through examination, see the Associate Dean for Graduate Studies. Other quantitative tools appropriate to the student's graduate program (e.g., econometrics, computer science) may be accepted and certified according to the standards of the department offering the tool.

Research Requirements

A thesis or two substantial research papers are required, one in each field, to be prepared in conjunction with an advanced course or research seminar in the field, or as an independent research project.

Master of Arts in International Communication

The Master of Arts in International Communication is designed to provide a broad basis for achievement in the arts and sciences of international communication and to prepare the candidate to make specialized academic and professional contributions to the field. The program, administered jointly by the School of International Service and the Department of Communication of the College of Arts and Sciences, draws upon the relevant research and thinking of the social and behavioral sciences—including political science, economics, social psychology and cultural anthropology. In addition to the general standards of admission applicable to Master's level study, the student applying for admission to this program must include a strong major or minor in social and behavioral sciences or communication in his academic background. For further information, write to Dr. Hamid Mowlana, Director of Program in International Communication, School of International Service, The American University, Washington, D.C. 20016.

Minimum Course Requirements

Thirty (30) hours of graduate credit is required for the Master of Arts in International Communication. Of these, approved graduate work for this degree includes the following:

Six semester hours in methodology of research selected from the following: 17.760 Methodology of Communication Research, 33.617 Survey Research Methodology, 53.611 The Conduct of Political Inquiry and Research or other approved social science research methods courses;

Nine (9) hours in international communication; at least three (3) hours must be in 17.531 International Communication Systems;

Nine semester hours in one of the following social science and related areas: International Studies (relating to any one of the comprehensive examination fields offered by the School of International Service), Comparative Government and Politics, Economic Development, and Cultural Area Analysis. Social Psychology and General Communication Theory may be taken as related areas if comprehensive examinations are offered in these fields.

Comprehensive Examination Requirements

Two written comprehensive examinations are required in the fields of international communication and a related area; these fields may be chosen and approved in consultation with a faculty advisor and certified by the Associate Dean of the School of International Service or Program Director.

Research Skill Requirements

All candidates for the Master of Arts in International Communication must pass a tool of research examination in a modern foreign language, translation only, at a "3-level" of proficiency according to the standards of the Foreign Service Institute of the Department of State. Examinations are administered by the Department of Language and Foreign Studies.

Research Requirements

A thesis or two substantial research projects prepared in conjunction with an advanced course or research seminar in the field, at least one of which must be completed in the Department of Communication of the College of Arts and Sciences.

Master of Arts in Language and Area Studies

This degree is the only M.A. degree offered by The American University which permits a true area specialization, including a requirement of competence in an indigenous language of the area. There are two program options, one in European areas and languages and the other in Asian areas and languages, each option reflecting different levels of required language proficiency.

Program I

This Program is administered jointly with the Department of Languages and Foreign Studies. There is a prerequisite of three years of training in a language of the area. The language-area groups currently authorized under the degree program are as follows:

- A. Western European Area Studies—French or German Language
- B. USSR Area Studies—Russian Language
- C. Latin American Area Studies—Spanish Language

Course Requirements

A total of thirty-three (33) hours of approved graduate work is required, including:

- Twelve (12) hours in substantive area courses, taught in a language of the area, of which six (6) must pertain to the two comprehensive examination fields (where available).
- Three (3) hours of an integrated area seminar.

Comprehensive Examination Requirements

Two written comprehensive examinations are required in the area of specialization, one from History or Diplomatic History and International Relations, and the other from among the following fields: Comparative Government and Politics, Economic Development Policy, Comparative Economic Systems, and Soviet-type Economies, Cultural Area Analysis, or Literature (by petition only).

No specified number of courses is required per comprehensive examination field. However, a field is usually defined for purposes of these examinations, as four courses, one of which is taught in the language of the area and one of which is an advanced course or research seminar.

Research Requirements

A thesis or two substantial research papers are required, one in each field, to be prepared in conjunction with the advanced course or research seminar in the field, or as an independent research project.

Program II

Candidates for this degree in Program II must demonstrate proficiency in translation at the "2-level," according to the standards of the Foreign Service Institute of the Department of State, in a language of the area selected for concentration. Examinations are administered by the Department of Language and Foreign Studies. The language-area groups currently authorized under the degree program are as follows:

- D. South Asian Area Studies—Hindi or other approved South Asian Language
- E. Southeast Asian Area Studies—Indonesian, Thai or Vietnamese Language
- F. East Asian Area Studies—Chinese or Japanese Language

Course Requirements

A total of thirty (30) hours of approved graduate work is required.

Comprehensive Examination Requirements

Two written comprehensive examinations are required in the area of specialization, one from History or Diplomatic History and International Relations, and the other from among the following fields: Comparative Government and Politics, Economic Development Policy, Cultural Area Analysis, or History of Religion. An integrated oral examination is required, following successful completion of the written comprehensive examinations, for which preparation consists of the program of study outlined above and an integrated area seminar or tutorial.

Research Requirement

A thesis or two substantial research papers are required, one in each field, to be prepared in conjunction with the advanced course or research seminar in the field, or as an independent research project.

Doctor of Philosophy in International Studies

The Doctor of Philosophy in International Studies is designed primarily to prepare students for academic careers as teachers and research scholars, although an increasing number of students planning professional careers in the public or private sectors, both in the United States and abroad, are completing doctoral programs in this field.

Minimum Course Requirements

A minimum of seventy-two (72) hours of approved graduate credit is required for the Doctor of Philosophy degree, of which a total of up to twelve (12) hours may be in Doctoral Dissertation Supervision. Students must include in the seventy-two hours the six (6) hours of economics and the six (6) hours of political science specified for the Master of Arts in International Studies, or their equivalent.

Comprehensive Examination Requirements

Four written comprehensive examinations are required as follows:

- a. International Relations Theory;
- b. One of the following: International Law and Organization; International Communication; Comparative Government and Politics; Foreign Policy Analysis;
- c. One of the following: International Economic Policy; Economic Development Policy; Comparative Economic Systems and Soviet-type Economies; Diplomatic History and International Relations (with an area specialization); History (with an area specialization); History of Religion (with an Asian area specialization);
- d. A fourth field from either (b) or (c) above.

Note that the distribution of comprehensive examination fields is such that at least two of the four must be in political science and at least one of the four must be in a discipline other than political science. No specified number of courses is required per comprehensive examination field. However, a field is usually defined, for purposes of the comprehensive examination at the Ph.D. level, by the content of any introductory graduate course in that field plus three or four additional courses (thus twelve to fifteen hours of course work or its equivalent in informal study is the customary preparation).

Integrative Oral Examination

Following successful completion of the four field comprehensive examinations, each Ph.D. candidate is required to pass an integrative oral examination. The purpose of this examination is to evaluate the candidate's awareness of the relationships which link his fields and to test his mastery of international studies as an interdisciplinary field of inquiry. This requirement is in effect for all students admitted to doctoral study effective with the fall 1972 semester.

Research Skill Requirements

Candidates for this degree must pass a tool of research examination in two modern foreign languages or in one modern foreign language and in statistics and quantitative analysis. The languages must be germane to their field of specialization. In the case of a modern foreign language, the proficiency required for European, South and Southeast Asian languages is "3-

level," and for East Asian languages "2-level," according to the standards of the Foreign Service Institute of the Department of State. Examinations are administered by The American University Department of Language and Foreign Studies.

The optional research tool requirement in statistics and quantitative analysis may be satisfied by an examination in statistics plus satisfactory completion of a research project employing quantification methods in either 33.607 Survey Research Methodology, 33.707 Research Seminar in International Relations or 33.690 Independent Research Project. Other quantitative tools appropriate to the student's graduate program (e.g., econometrics, computer science) may be accepted and certified according to the standards of the department offering the tool.

For further information, see the Associate Dean.

Special Features of the School

Center for Asian Studies

The Center coordinates Asian Studies throughout the University, and administers those programs on Asia given by the School of International Service. Programs are available at the undergraduate, Master's and Doctoral levels, with emphasis on South Asia, on Southeast Asia and on East Asia (China and Japan). (Opportunities for specialization in Asian Studies are described under each of the several degree programs described in the preceding pages.)

The Center was established in 1971 by amalgamation of the East Asia faculty and programs with the Center for South and Southeast Asian Studies, which had been established in 1965. The programs of the Center for Asian Studies utilize not only the resources of The American University but also those of other members of the Washington Consortium of Universities.

The disciplines involved are anthropology, art, business, economics, government and politics, history, international relations and religion. The languages involved are Chinese, Hindi, Indonesian, Japanese, Thai and Vietnamese, and Sanskrit. Some of these are offered at The American University, but all are available through the Consortium of Universities.

The Center will award a Certificate of Asian Study to every student upon completion of a degree program which has included a significant emphasis in Asian Studies. Undergraduates who wish to qualify for the Certificate must complete satisfactorily four or more courses on Asia or in an Asian language. Graduate students who wish to qualify for the Certificate must complete satisfactorily at least one area related comprehensive examination, appropriate degree level area language certification, and a substantial research paper, thesis, or dissertation dealing with the area.

The Director of the Center for Asian Studies is Dr. Warren S. Hunsberger, Professor of Economics and Asian Studies. For further information write to the Director, Center for Asian Studies, School of International Service, The American University, Washington, D.C. 20016.

Latin American Studies

The Washington Consortium of Universities, provides one of the most comprehensive opportunities for the study of Latin America within the United States. The American University occupies a central position with a comprehensive curriculum and a large faculty in this field. The presence in Washington of the Organization of American States and the Inter-American Development Bank enhances this program immeasurably.

Specialization in Latin America is possible under degree programs offered by the School of International Service at all levels. Comprehensive programs in the Spanish and Portuguese languages are available, including courses on Latin American history, politics, international affairs and other subjects taught in Spanish. Opportunities for specialization in Latin American Studies are described under each of the several degree programs described in the preceding pages.

The Director of Latin American Studies is Dr. John J. Finan, Professor of International Relations and Latin American Studies. For further information write to the Director, Latin American Studies, School of International Service, The American University, Washington, D.C. 20016.

International Administration for World Human Needs

The School of International Service is interested not only in intergovernmental relations and the resolution of international crises. It is also concerned with a whole range of less dramatic problems and with interpersonal as well as with intergovernmental efforts to resolve them. The Program of International Administration for World Human Needs seeks to focus attention on such problems as population and environmental control, agricultural and industrial development, educa-

tion and health; the interrelationships among these issues; and strategies for dealing with them in a human context through international agencies and private organization of a business, religious, philanthropic and service nature.

The Program offers a special dimension to the study of international organization, economic development, cross-cultural analysis, and foreign policy through special courses in world human needs, the encouragement of theses and other projects in these areas, and study-tours and internships where appropriate.

The Director of the Program in International Administration for World Human Needs is Dr. Darrell Randall, Professor of International Relations. For further information write to the Director, Program in International Administration for World Human Needs, School of International Service, The American University, Washington, D.C. 20016.

Washington International Semester

This program of study is for advanced undergraduate students enrolled from cooperating institutions through formal inter-institutional agreements and consists of a seminar on Washington in World Affairs, an individual research project and two regular courses at The American University. The program provides the opportunity for each student to deepen his understanding of international affairs as they are seen from Washington and to become familiar with the sources for study of specific foreign policy issues. Students study and observe the manifold governmental, international and private activities which contribute to the United States' posture in international and world affairs.

For further information, write to the Director, Washington International Semester, The School of International Service, The American University, Washington, D.C. 20016.

Semester Modules

In addition to the regular programs of study, undergraduate students may also participate in special semester "modules." The module is an innovative approach to education which permits a group of students, guided by a team of professors, to devote its entire efforts and attention for one semester to a specific topic or theme. The purpose of the module is to integrate and synthesize knowledge from a variety of fields and apply this multi-disciplinary approach to the analysis of specific issues or problems in international affairs. Each module will also provide a wide variety of learning experiences. Depending upon the program a student selects, he may be able to participate in special seminars and conferences, individual and team research projects, on-site observation and field investigations, internships, simulation exercises, and computer-aided measurement and analysis of quantifiable data. General themes that will be considered by separate modules during 1972-73 include: The Development of Whole Societies (an analysis of the meaning of the concept of development in traditional, modern, and post-modern societies), and Foreign Policy Analysis (a consideration of the variety of technological, informational, economic and environmental forces that limit or shape the options of policy-makers).

Undergraduate Internships and Independent Study

The School of International Service encourages students to engage in independent study projects. These usually take the form of special reading or research projects arranged directly with a faculty member of The American University. Students also have the opportunity to gain firsthand experience in the process of foreign policy-making through special internships in government agencies and non-governmental organizations in the Washington, D.C. area.

Lucy Webb Hayes School of Nursing

DEAN Laura B. Kummer

Philosophy

The philosophy of THE LUCY WEBB HAYES SCHOOL OF NURSING is consistent with the philosophy and purposes of The American University. This consistency is demonstrated in the belief that the basic purpose of the University is the pursuit of knowledge and the nurturing and perpetuation of creative and intellectual activity.

We believe an inherent aspect of education is the development of a person with an understanding of his heritage in relation to society, and a conscious sense of human values and an appreciation of life.

We believe that effective learning occurs when the student is active in the learning process, is motivated in the use of critical thinking and intellectual inquiry and is guided toward seeing meaningful relationships. This learning is manifested in the individual by covert and/or overt change and is most effective when learning experiences are planned to meet the individual needs of students.

We believe that professional nursing consists of dynamically interrelated theoretical and service components. Professional nursing strives to prevent illness and to promote, maintain, and restore health, and, when health cannot be maintained, to continue to meet those needs which support the dignity of the individual.

Purpose

Consistent with the University mission, the program in nursing prepares the student for the practice of professional nursing at a beginning level.

Objectives

To achieve this purpose and in keeping with the definition of professional nursing, the faculty provides opportunities for the student to:

1. Provide direct care to individuals and groups.
2. Develop, test, and validate new methods to improve knowledge and care.
3. Initiate, implement and evaluate care for uncommon and/or complex nursing problems.
4. Organize, coordinate and supervise people involved in the provision of care.
5. Participate as a member of the health team in the planning and delivery of care.
6. Teach the patient, family groups and others involved in health care.
7. Develop the continuing desire to learn.
8. Engage in self-directed study.
9. Participate in professional and community concerns.

School of Nursing

Correspondence Directory: Laura B. Kummer, *Dean*

Full-time Faculty

Professor: Laura B. Kummer

Assistant Professor: Nancy Davenport, Gita Dhillon, Susan Finkelstein, Patricia Finn, Josephine Gimble, Laverne Neiswender, Mildred Randall, Edith Summerlin, Barbara Wilkas

Instructor: Joan Bishop, Marcia Weinstein

Field of Study

The School of Nursing educates students in aspects of the biological, physical and social sciences essential to care for the sick and prevention of illness. The faculty believes that nursing competence depends not only upon sound information and good judgment, but also upon communication skills, an understanding of the dynamics of social interaction and active participation in community concerns. The academic program is based on the assumption that the most effective learning occurs when the student is actively involved in the learning process and motivated to think critically and intelligently.

Undergraduate Degree Bachelor of Science

Admission

See section on Admissions Information.

Advanced Placement

Applicants may include students of diploma, associate degree and practical nurse programs; Armed Forces Corpsmen and others with work/educational experiences.

Those seeking admittance may request information from the School of Nursing.

Health Requirements

In addition to meeting all general University health requirements students are required to keep current immunizations for diphtheria, tetanus, poliomyelitis, and smallpox.

Annual skin testing for tuberculosis is required.

Transportation

Students assume responsibility for transportation between the University and various facilities used for laboratory and clinical experience. Students majoring in Nursing will find it desirable to have the use of an automobile during the junior and senior years; it is a necessity during the semester in which students are enrolled in the public health nursing course.

Curricular Plan

FALL SEMESTER

15.120	Chemistry	1
15.121	Chemistry Lab	1/4
23.100	English Comp.	1
65.200	Intro. to Sociology	1
9.110	Biology	1

Freshman Year

1
1/4
1
1
1

4 1/4

SPRING SEMESTER

15.130	Chemistry	1
15.131	Chemistry Lab	1/4
23.101	English Comp.	1
57.200	Gen. Psychology	1
	Elective	1

4 1/4

Sophomore Year					
46.200	Nursing I	2	46.201	Nursing II	2
9.330	Anatomy & Physiology	1	9.331	Anatomy & Physiology	1
9.340	Microbiology	1	46.440	Indiv. & Group Dynamics	1/2
				Elective	1
		4			4 1/2

		<i>Junior Year</i>		
46.300 Nursing III	3	46.310 Maternal-Child Nursing		3
57.400 Dev. Psychology: Childhood	1	Elective		1
	4			4
		<i>Senior Year</i>		
46.340 Psychiatric Nursing	2	46.410 Problem Analysis in Patient Care		1
46.400 Public Health Nursing	2	46.420 Organization of Patient Care Services		1
	4	46.430 History & Analysis of Nursing		1
		Elective		1
				4

Minimum—33 courses

Courses of Instruction

Courses of Instruction

The following pages list the courses of instruction. In general, the following principles apply:

The digits to the left of the decimal point of a course number represent the department, school, or college offering the course, as indicated in parentheses in the course index which follows. Of the last three digits, indicated in parentheses in the course index which follows, .100, .200, .300, and .400 indicate an undergraduate course. Courses numbered .500 are graduate courses to which advanced undergraduates may be admitted. Courses numbered .600 and .700 are graduate courses to which undergraduates normally are not admitted.

Independent study, research and reading courses are discussed on page 32 of this catalog.

Effective with fall 1970, the University changed undergraduate degree requirements from 120 semester hours to 32 courses. Graduate degree requirements, however, remain on a semester hour basis. Course credit, accordingly, varies. In general, the following principle applies:

Undergraduate courses are valued on a "course unit" basis; the course unit being indicated in parentheses following the course number and title, e.g. "1.100 Honors English (Course)". Course unit value can be in the following amounts: quarter-course, half-course, three-quarter course, full-course, etc., at quarter gradations through quadruple course.

For the purpose of transfer evaluation, it

is recommended that a "course" receive four (4) semester hours credit.

Graduate courses continue to be valued in the traditional semester hour method. For undergraduates permitted to take graduate level courses, the general principle followed is to allow one "course unit" for a three semester hour course. Where variations from this principle occur, explicit indication is given.

Prerequisites

Many courses call for a previous minimum background of knowledge, as indicated by courses cited in individual descriptions as *prerequisites*. Titles are those of The American University courses; equivalent courses satisfactorily completed at other accredited institutions also meet prerequisite requirements for transfer credit.

Administrative officers may sometimes waive prerequisites on the basis of experience and professional achievement. Where done, the student should secure the syllabus of the prerequisite course and complete the readings on his own. This will minimize the problem of gaps and out-of-date information.

Prerequisites mean the instructor will not use class time to go back and teach the material of the preliminary courses. Students are held responsible for entering the class already possessing the required competence. *Thus, prerequisites warn students of the knowledge they are to bring with them in order to meet the*

Course listing index found on page ix of catalog.

expected standards of performance. Failure to possess this background can endanger the student's good standing and his ability to continue in the school. Therefore, students may be required to drop the course in question and register for the prerequisite course or courses instead.

Day classes, except those on Saturdays, ordinarily meet two days a week for 75 minutes a meeting. Saturday morning classes meet

once a week for two hours and twenty minutes a meeting.

Evening classes ordinarily meet once a week for two hours and 45 minutes a meeting with a 15-minute break during the evening; or they may meet twice a week for 75 minutes a meeting.

See also the regulations regarding courses under the individual school or department degree programs.

American Studies

02.200 Introduction to American Civilization I (Course)

The changing American experience. The tension between the prestige of the European past and the promise of the new world. The reflection of this tension in American life, thought, and art.

02.201 Introduction to American Civilization II (Course)

The changing face of America. The impact of urbanization and technological change on the American family, school, church, and arts.

02.390 Independent Reading Course in American Studies (Quarter-course to double course) See page 32.

Consult current bulletin for topics offered during each semester.

02.400 Colloquium in American Studies (Course)

Reading, reports and discussion of a collection of the major books and articles in the American Studies field, including Political Thought, Literary Studies, Religion, Social Thought, The American Character, the Arts and Popular Culture.

02.401 Senior Seminar in American Studies (Course)

Introduction to research materials and methods. Students prepare and present a research paper for criticism by the seminar. Required of all seniors in American Studies.

02.490 Independent Study Project in American Studies (Quarter-course to double course)

Students complete a work project, research paper, critical bibliography or other approved project under the direction of a faculty member. See page 32.

Anthropology

3.201 Introduction to Cultural Anthropology (Course)

Nature of culture and society. Concepts and theories for their understanding in terms of language, social structure, ecology, adaptive change, and the role of the individual.

3.202 Biocultural Evolution (Course)

Interrelationships between biological and cultural factors in the origin and development of man. Primate studies. Prehistoric man and his cultures. Contemporary human variability.

3.331 Variation in Man (Course)

Variation in man by race, age, developmental stages, and sex. *Prerequisite:* 3.202. Fall semester.

3.332 Old World Prehistory (Course)

Cultural development of man in Europe, Africa, and Asia from his earliest cultural beginnings through early metal ages. *Prerequisite:* 3.202. Fall semester. Alternate years

3.333 New World Prehistory (Course)

Prehistory and rise of civilizations in the North and South American continents from the arrival of the Indian to the time of European contact. *Prerequisite:* 3.202. Spring semester. Alternate years

3.334 Anthropological Archeology (Course)

Aims, methods and theory of archeology as a subdiscipline of anthropology. Consideration of archeological evidence, data acquisition, dating, technical-typological analysis and interpretative frameworks. *Prerequisite:* 3.202.

3.335 Ethnographic Survey (Course)

Introduction to and comparison of culture areas of the world; representative societies studied to examine role of economic, social, political, and religious systems at various levels of complexity. *Prerequisite:* 3.201. Fall semester.

3.336 Social Structure (Course)

Principles of organization of persons into kinship, political, ritual, and other groups. Analysis of rights and duties of persons according to institutional context. Relation of central cultural concepts to varieties of social organization. *Prerequisite:* 3.201.

3.337 Anthropological Linguistics I (Course)

Relationship of anthropological research to language study. European and American traditions. Some field work with native informants. *Prerequisite:* 3.201.

3.338 Anthropological Linguistics II (Course)

Relations among languages as evidence for ethnic groupings. Linguistic evidence in the study of prehistory. Lexicostatistics. Ethnography of communication and speech communities. *Prerequisite:* 3.337.

3.430 Religion in Culture (Course)

Theories and concepts relating to religions, religious development and behavior, exclusive of the great world religions. Role of religion in influencing behavior and integrating cultures. *Prerequisite:* 3.201. Alternate fall semesters.

3.431 Culture and Personality (Course)

Study of determinants of personality. Theories of psychological anthropology; psychological development of and cultural stress on individuals in primitive societies. *Prerequisite:* 3.335 or 3.336. Fall semester.

3.432 Culture Change (Course)

Dynamics of culture. Stability, form, growth. Determinants of and barriers to change. Culture contact, acculturation and assimilation. *Prerequisites:* 3.201 and one additional course in cultural anthropology.

3.433 The Anthropology of Art (Course)

Visual and plastic arts and their symbolism and expression in cultures of Africa, Oceania, and the New World. *Prerequisite:* 3.201 or permission of instructor.

3.434 Community Studies (Course)

Anthropological theory and method relating to studies of communities within complex societies. *Prerequisites:* 3.201 and 3.335 or 3.336, or permission. Spring semester.

3.390 Independent Reading Course in Anthropology (Quarter-course to double course)

See page 32.

3.490 Independent Study Projects in Anthropology (Quarter-course to double course)

See page 32.

3.498-499 Senior Honors in Anthropology (Course)

Individualized study for exceptional students. Topics to be arranged with appropriate faculty. Open to juniors and seniors with grade index of at least 2.0 in the major and 2.0 in the cumulative index. Requires approval of department chairman.

Advanced Courses:

Undergraduate students enrolled in .500 level courses will receive one course unit.

3.530 Human Evolution (3)

Primate variation in form and behavior; early man in evolutionary and ecological perspective; fossil evidence; genetic, biological, and cultural factors. *Prerequisite:* 3.331. Alternate spring semesters.

3.531 Archeology: Topics will alternate (3)

Archeological analysis and interpretation. Theory and method applied to archeological data of a particular area and/or period of time. Successive semesters deal with topics such as: Old World: Lower and Middle Paleolithic Ecology, Upper Paleolithic and Mesolithic Ecology, Archeology of South Asia, Archeology of South-West Asia; New World: Archeology of Meso-America, Archeology of the Eastern Woodlands. May be repeated for credit if there is no duplication. *Prerequisite:* 3.332 or 3.333. Where the geographic area is relevant, these courses constitute part of the SIS area programs.

3.536 Language Area Profiles (3)

Analysis of a specific language area in terms of language distribution, structural variation, history and cross-interpretation with ethnological and archeological data, e.g., Amer-indian, Malayo-Polynesian, Indo-Hittite groups. May be repeated for credit if there is no duplication. *Prerequisites:* 3.337 and 3.437, or permission of instructor.

3.537 Language in Culture (3)

Relation of language to culture; distribution of languages;

cross-cultural consideration of language structure; problems of language and culture change. *Prerequisites:* 3.201 and one linguistics course. Spring semester.

3.538 Systemic Analysis: Topics will be rotated (3)

Analysis of ethnographic data in terms of cultural and social systems. Successive semesters on: kinship, descent and marriage; politics and law; economics; symbolism in ritual and religion. May be repeated if there is no duplication. *Prerequisite:* 3.335 or 3.336.

3.539 Ethnology: Offerings will alternate (3)

Culture areas analyzed in terms of structure, function and dynamics. Readings in the ethnological, methodological and theoretical literature pertaining to the area. Regularly recurring courses include: the Far East; South Asia; Rural Society; South Asia; Caste; Southeast Asia; North American Indians; Indians of the Southwest; Middle America; South America; Sub-Saharan Africa, Urbanization in Africa; Europe; and Oceania. May be repeated for credit if there is no duplication. *Prerequisite:* 3.335, 3.336 or permission. Where the geographic area is relevant, these courses constitute part of the SIS area programs.

3.543 Analytical Methods: Topics will alternate (3)

Student practice in laboratory techniques and/or analysis of cultural materials. Stress on actual involvement in research. Methods presented in different semesters include: Quantitative and Qualitative Methods, Osteology, Paleoecology, Technology, Ethnohistory, Cultural Dynamics, and Cross-Cultural Analysis. May be repeated for credit if no content duplication is involved. *Prerequisite:* permission.

3.544 Applied Anthropology (3)

Application of principles and methods of cultural anthropology, including results and significance of research, to contemporary inter-culture relationships, administration of native peoples, technological development, health, urban and poverty problems and community development. *Prerequisite:* permission of instructor. Spring semester.

3.545 Theory in Anthropology (3)

History of the discipline, reviewing theory, method and approaches of anthropology in ethnology, archeology, physical anthropology, and linguistics. Outstanding theorists of the field. Open to anthropology students who are seniors or graduate students. *Prerequisite:* at least one course in each of the above fields. Spring semester.

3.550 Field Methods: Topic to be announced (3-6)

Intensive training in ethnographic, linguistic, or archeological field methods. Ethnological utilization of subcultural resources of the Washington area; or excavation in the U.S. or abroad. Preparation of proposals, funding, sampling, data gathering and preliminary analysis of materials.

3.590 Independent Reading Course in Anthropology (1-6)

See page 50.

3.690 Independent Study Project in Anthropology (1-6)

See page 50.

NOTE: Permission required for all Seminars

3.700 Seminar: Psychological Anthropology (3)

Emphasis on advanced topics such as cognitive processes and theory, semantic analysis and ethnopsychology, with emphasis on their significance for stability and change.

3.701 Seminar: Cultural Dynamics (3)

Evaluation of existing theories of change, their strengths and inadequacies. Attempted adumbration of new theory with contemporary significance.

3.702 Seminar: Urban Anthropology (3)

Anthropological approach to cultures of the city. Analysis of cultural backgrounds of peoples moving to urban communities. Pathways of groups migrating into different levels of urban society. Subcultures of class and ethnic groups in the urban environment.

3.703 Seminar: Anthropology of Development (3)

In cooperation with the department of anthropology in the Consortium of Universities to analyze and interpret processes of economic, social and cultural development of newly formed and independent countries. Training of professional anthropologists for research, consultation, or teaching.

3.704 Seminar: Social Anthropology (3)

Focused conceptual frame for study of social relations of groups and categories of persons, of institutions and relations among institutions in simple and complex societies. Significance of focus for theory of stability and change.

3.705 Seminar: Processual Interpretation (3)

Consideration of archeology as anthropology. Contributions of archeological data to general anthropological theory, especially cultural process.

3.731 Seminar: Problems in Anthropology (3)

Intensive analysis of selected theoretical and methodological problems in one of four fields of anthropology. May be repeated for credit if no duplication is involved.

3.737 Seminar: Topics in Anthropological Linguistics (3)

A different topic of current importance will be considered each time: e.g., kinship analysis from linguistic evidence; ethno-linguistic profile of Southwestern Puebloan groups; cognitive approach to language study.

3.797 Master's Thesis Seminar (3-6)

3.799 Doctoral Dissertation Seminar (12-24)

Art

STUDIO

5.104 Introduction to Visual Arts (Course)

Develops visual perception and presents formal and theoretical background necessary for informed understanding of painting, sculpture, architecture. Lectures, discussion groups from visual material.

5.120 Fundamentals of Drawing and Painting (Course)

Basic training in translating perception into the formal language of painting and drawing. Course time is divided between the two disciplines, allowing full coverage of differences in media.

5.130 Oil Painting (Quarter-course)

Basic problems of figure and still life painting. Emphasis on color and design. Primarily for amateurs, students other than art majors. May be repeated for credit.

5.160 Sketch Class (Quarter-course)

Life drawing with emphasis on rapid sketch. May be repeated for credit.

5.320 Creative Painting (Course)

Studies in color, composition and drawing from still life and figure and in individually assigned projects. May be repeated for credit, but not in the same semester. *Prerequisite:* 5.120 or equivalent.

5.340 Sculpture (Course)

Problems and principles of sculpture. Acquaintanceship with tools, techniques, materials for plastic expression. May be repeated for credit but not in the same semester.

5.344 Ceramics (Course)

Explores basic principles of working with clay. Instruction both in wheel and other methods of making pottery.

5.360 Drawing (Course)

Structural drawing from the human figure: movement, expression. Range of techniques and mediums. May be repeated for credit.

5.364 Printmaking I (Course)

Exploration of wood cut, serigraphy and various other print techniques as a media of creative expression. *Prerequisite:* 2 courses in drawing.

5.365 Printmaking II (Course)

Exploration of etching and other print techniques. Emphasis on experimentation with combined and new media. *Prerequisite:* 5.364 or permission.

DESIGN

5.348 Design Techniques I (Course)

Develops a range of drawing media required in design presentation.

tation. Each semester is independent in its content. May not be repeated for credit.

5.349 Design Techniques II (Course)

Sequel to 5.348. May not be repeated for credit.

5.350 Design Fundamentals I (Course)

Theory and techniques of design applicable to all problems of visual presentation: layout, display, graphics, etc. Each semester is independent in itself and need not be taken in sequence. *Prerequisites:* 5.348 and/or 5.349 or concurrent registration.

5.351 Design Fundamentals II (Course)

Sequel to 5.350. *Prerequisites:* 5.350 or 5.348 and/or 5.349 or concurrent registration.

5.352 Lettering and Typography I (Course)

Theory and analysis of letter forms as design and symbol. Study of type faces, arrangement and setting. *Prerequisite:* 5.351 or permission.

5.353 Lettering and Typography II (Course)

Continuation of 5.352; particular application to advertising design. *Prerequisite:* 5.352, or permission.

5.356 Advanced Design I (Course)

Experimentation and practice in design problems relating to visual communication; emphasis on techniques and solutions of professional problems. *Prerequisite:* 5.350-1 and 5.348-9 or permission.

5.357 Advanced Design II (Course)

Practical consideration and execution of complex design problems involving previous design training. Continuation of 5.356. *Prerequisite:* 5.356 or permission.

5.368 Interior Design I (Course)

Basic principles, materials and methods used in the vertical and horizontal designing of simple interior spaces. Lecture and laboratory. *Prerequisite:* 5.348 or 5.349 or concurrent registration.

5.369 Interior Design II (Course)

Correlation of materials and furnishings with functional requirements of multiple interior spaces. Lecture and laboratory. *Prerequisite:* 5.368.

5.378 Problems of Traditional Interiors (Course)

Intensive investigation of aesthetic solutions to the designing of period interiors. Lectures and laboratory. *Prerequisites:* 7.103 and 5.369.

5.379 Problems in Modern Interiors (Course)

Intensive investigation of aesthetic solutions to the designing of modern interiors. Lectures and laboratory. *Prerequisites:* 7.103 and 5.369.

5.388 Interior Design Sources (Course)

Theory and practice of interior designs including the design,

specification and fabrication of furnishings and equipment for interiors. Lectures and projects. *Prerequisite:* 5.369.

5.389 Senior Problems in Interior Design (Course)

Analysis, organization and solution of complex design problems in definitive and professional presentations. Laboratory. *Prerequisites:* 4 courses of interior design including 5.379 and 5.388.

ART EDUCATION

5.370 Crafts for Art Teachers (Course)

Exploration of various 2-dimensional and 3-dimensional crafts appropriate to teaching art at secondary level through studio practice. Art majors only. *Prerequisites:* junior or senior standing with 4 studio courses and portfolio review.

5.371 Method of Teaching Art in Secondary Schools (Course)

Theoretical and practical considerations of teaching art at secondary level through lecture, discussion and observation. Meets for 6 weeks prior to 9 weeks of student teaching. Must be taken in senior year in conjunction with 21.445 Student Teaching: Secondary Schools (9). Art majors only. *Prerequisites:* 5.370 and admission to 21.445.

5.380 Teaching Art in Elementary Schools (Course)

Methods and techniques of teaching art as part of regular elementary school instruction. Limited to education majors in elementary school program or permission.

5.390 Readings in Art (Quarter

See page 32.

5.490 Independent Project in Art (Quarter Course to Double Course)

See page 32.

5.590 Readings in Art (1-6)

See page 32.

5.690 Independent Project in Art (1-6)

See page 32.

ART HISTORY

7.100 Survey of Art I: Ancient and Medieval (Course)

Illustrated historical introduction to architecture, sculpture and painting presented as an objectification and record of man's major beliefs and ideas to 1500. Field trips.

7.101 Survey of Art II: Renaissance and Modern (Course)

Illustrated historical introduction to architecture, sculpture and painting in Western world between 1500 and 1950. Field trips. *Prerequisite:* 7.100 or equivalent.

7.102 Survey of the Decorative Arts I (Course)

Illustrated historical introduction to decorative arts, furniture, and interior architecture, Greece through the 17th century.

7.103 Survey of the Decorative Arts II (Course)

Illustrated historical introduction to decorative arts, furniture, and interior architecture, from the 18th through the 20th centuries. *Prerequisite:* 7.102.

7.105 Introduction to the History of Art (Course)

Artistic expression, styles, and purposes from ancient times to the present, as shown by comparative study of a limited number of artists and works of art. Open only to non-majors.

7.301 Greek Art (Course)

Greek art and architecture from the Archaic period through the Hellenistic.

7.302 Roman Art (Course)

The art and architecture of Rome from the Republic through the Empire. *Prerequisite:* 7.100 or 7.301.

7.306 20th Century Art (Course)

Painting, sculpture and architecture since 1900 in Europe and the United States. Investigates aesthetic theories common to contemporary art movements.

7.307 Oriental Art: An Introductory Survey (Course)

Highlights of Asian art, with emphasis on: the artistic achievements of India, China, and Japan; interrelationships and influences; cultural, religious, and historical factors.

7.309 Oriental Art: Japanese (Course)

Main currents and monuments of Japanese art from prehistoric to modern times.

7.310 African Art (Course)

Familiarizes the student with the heritage of the sub-Sahara Africa. Emphasis on advanced civilizations of the upper Nile, Ethiopia, and Nigeria.

7.390 Reading in Art History (Quarter Course to Double Course)

See page 32.

7.400 Seminar for Art History Majors (Course)

Required for art history majors. Introduction to art history through reading, discussion, and written work based on a selected number of topics. Major aspects such as formal analysis, style, iconography, and quality considered. Attention given to critical interpretation and writing research paper in art history. *Prerequisite:* 4 courses in art history.

7.490 Independent Project in Art History (Quarter Course to Double Course)

See page 32.

Advanced Courses

Undergraduate students enrolled in .500 level courses will receive one course unit.

STUDIO**5.520 Techniques of Etching I (3)**

Engraving, etching and aquatint, designed to give advanced

student thorough knowledge of traditional and modern methods in intaglio printing. May be repeated once for credit, but not in the same semester. *Prerequisite:* Printmaking (5.364-5) or 4 drawing courses.

5.521 Techniques of Etching II (3)

Continuation of 5.520. May be repeated once for credit. *Prerequisite:* 5.520.

5.533 Materials and Techniques of Painting (3)

Technical investigation of painting methods from Renaissance to present. Preparation of grounds, media, underpainting, glazing, emulsions for tempera, etc. *Prerequisite:* 4 painting courses.

5.560 Drawing (3)

Experiments in the creative and expressive quality of drawing. Personal creative expression. *Prerequisites:* Admission to graduate program in Fine Arts or permission.

5.700 Criticism of Painting (3)

Theoretical and philosophical consideration of painting. Detailed analysis of artistic works. Lecture and slides. *Prerequisite:* admission to graduate program in Fine Arts or permission.

5.792 Art Laboratory—Painting (3)

Intensive investigation of ideas and techniques in painting. Emphasis on experimentation, leading to development of individual style. *Prerequisites:* Admission to graduate program in Fine Arts or permission.

5.793 Art Laboratory—Sculpture (3)

Intensive investigation of sculpture with emphasis on experimentation leading to individual style. *Prerequisites:* Admission to graduate program in Fine Arts or permission.

5.794 Directed Project in Fine Arts (3)

Open only to M.F.A. candidates who have completed 6 credit hours of 5.792 or 5.793 (Art Laboratory). Student arranges independent study in painting or sculpture (etching may be specially arranged for students doing thesis in etching) under individual faculty with approval of faculty member and department chairman. Qualitative grade will be given. May not be repeated for credit.

5.797 Master's Thesis Seminar (3-6)

M.F.A. candidate with permission of chairman.

ART HISTORY

Undergraduate students enrolled in .500 level courses will receive one course unit.

7.501 Baroque Painting (3)

17th century painting in Italy, Spain, France, the Netherlands,

and England. Emphasis on Caravaggio, Rubens, Rembrandt, Vermeer, Poussin, and Velasquez. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.502 Mediterranean Medieval Art (3)

Early Christian in Italy; Byzantine in the Near East; Romanesque in Italy. *Prerequisite:* 2 undergraduate art history courses including 7.100 or equivalent.

7.503 North European Medieval Art (3)

Art from early Christian period to 1400 (manuscript illuminations, French cathedrals, sculpture, stained glass). *Prerequisite:* 2 undergraduate art history courses including 7.100 or equivalent.

7.504 Gothic Art (3)

Architecture, painting, sculpture, manuscript illuminations and stained glass from 12th to 15th centuries in Europe. *Prerequisite:* 2 art history courses including 7.100 or equivalent.

7.506 Renaissance Sculpture (3)

Italian sculpture from 1400 to 1700 with stress on achievements of Donatello, Michelangelo, Bernini. *Prerequisite:* 2 art history courses including 7.101 or permission of instructor.

7.507 Modern Sculpture (3)

Changes in sculpture from 1700 to present with stress on innovations of Rodin, Brancusi, Moore and American abstractionists. *Prerequisite:* 2 art history courses including 7.101 or permission of instructor.

7.508 Painting: Rococo through Impressionism (3)

Painting in 18th and 19th century Europe; styles of Rococo, Neo-Classicism, Romanticism, Realism, and Impressionism; emphasis upon Watteau, David, Delacroix, Goya, and Monet. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.509 Modern Painting (3)

Painting in Europe and America from Post-Impressionism through contemporary painters, dealing with cubism, fauvism, surrealism, and abstract expressionism. Concentration upon major artists, e.g., Cezanne, Van Gogh, Gauguin, Picasso, and Matisse. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.510 Northern Renaissance Painting (3)

Painting in France, Germany and the Netherlands from the late 14th through the 16th centuries. Emphasis upon major artists such as Jan van Eyck, Durer, Holbein, Bruegel. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.511 Art in the United States: Architecture (3)

Architecture in the United States: 17th century to present; European antecedents and as independent style. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.512 Art in the United States: Painting (3)

Painting in the United States: 17th century to present; European antecedents and as independent style. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.513 Early Renaissance Painting (3)

Developments in the various artistic centers examined in re-

spect to the formulation and solution of Renaissance pictorial problems from 1300-1475. *Prerequisite:* 2 courses in art history including 7.101.

7.514 16th Century Italian Renaissance Painting (3)

Development of High Renaissance, Mannerist and proto-Baroque styles; major artistic personalities: 1475-1580. *Prerequisite:* 2 courses in art history including 7.101.

7.515 Graphic Art (3)

Unique qualities of graphic art (drawing and prints). Renaissance to present. *Prerequisite:* 2 art history courses including 7.101 or equivalent.

7.516 Fifteenth and Sixteenth Century Architecture (3)

Renaissance and Mannerist periods in European architecture. Emergence of classicism from the Gothic past. Covers architecture and city planning and attempts to explain new forms in terms of political and social developments. *Prerequisite:* 2 courses in art history including 7.100 or 7.101.

7.517 Seventeenth and Eighteenth Century Architecture (3)

Architecture and city planning from the Baroque to the French Revolution. Seeks to correlate changing forms and political, social events. *Prerequisite:* 2 courses in art history including 7.101.

7.518 Nineteenth and Twentieth Century Architecture (3)

Modern period architecture; encounter of architecture with machine age. *Prerequisite:* 2 courses in art history including 7.101.

7.520 Seminar in Art History (3)

Reports and critical discussion of research papers on topic announced for semester. May be repeated for credit. *Prerequisite:* 6 art history courses and permission.

7.590 Readings in Art History (1-6)

7.690 Independent Project in Art History (1-6)

See page 32.

7.792 Research Seminar in Art History (3)

Seminar limited to one of five areas. Specific topics announced each semester. May be repeated for credit but only in a different period.

- I. Medieval art
- II. Renaissance art
- III. Baroque and Rococo art
- IV. 19th and 20th century art
- V. American art

Prerequisites: Open only to M.A. candidates with 12 credit hours of graduate art history with a B average. Permission of department chairman required.

7.793 Directed Research in Art History (3)

Topic arranged. Must be in fields listed under 7.792 but not in field covered in 7.792 that semester. May not be repeated for credit. *Prerequisites:* open only to M.A. candidates with 12 credit hours of graduate art history with a B average. Permission of department chairman required.

Biology

9.100 Human Biology (Course)

Current topics in biology: population dynamics, human ecological factors, genetics and evolution, transplantation biology, biological effects of human environmental pollution and human nutrition. One semester. This course is designed for non-biology majors.

9.101-9.102 General Biology I and II (Course, Course)

A two-semester series to be taken in sequence. First semester, General Biology I, introduces basic chemical principles of biology and is concerned with aspects of molecular and cellular organization as these may concern anabolism, catabolism and reproduction. Second semester, General Biology II, includes consideration of higher levels of organization and the relationship of form and function in ecological adaptations. Two and one-half hours of lecture, three hours of laboratory.

9.120 Microbes and Man (Course)

A survey of the beneficial and detrimental properties of microbes to human welfare, designed for the non-biology, non-science major. Topics to include: role of microbes in the turnover of matter; role of microbes in the brewery and dairy industries; role of microbes as agents of disease (venereal diseases); role of microbes in municipal water treatment processes; and the application of microbes in testing for biological systems of extra-terrestrial environments, and the problems of microbes to space travel. Other topics of current interest. No prerequisites. This course is designed for non-biology majors.

9.130 Human Heredity (Course)

Discussion of inheritance of normal physical and mental traits, common genetic diseases and defects, genetic counseling, social implications of genetics, genetic implications of social forces, inherited racial differences, with emphasis on information the layman wants, rather than the mechanics of inheritance *per se*. No prerequisites. This course is designed for non-biology majors.

9.200 Morphogenesis of the Vertebrates (Course)

Embryological and evolutionary developmental processes of vertebrate organisms. Lecture. 2 1/2 hours per week. Laboratory optional for non-biology majors. *Prerequisite*: one semester of biology or permission of instructor.

9.201 Morphogenesis of the Vertebrates Laboratory (Half-course)

Includes examination of prepared slides, dissection of vertebrate specimens, and examination of living material that shows comparative aspects of embryological and evolutionary development. Organisms to be studied in lab include dogfish shark, frog, chick, pig, and cat. Six hours of lab per week. Must be taken concurrently with 9.200.

9.203 The Sea (Course)

Marine geology, oceanography, life in the sea, fisheries, marine technology, international law. Economic aspects of animals in the sea. *Prerequisite*: one semester of biology is recommended but not essential.

9.210 Evolution (Course)

History of evolutionary thought, mechanisms of evolutionary

change, evidence for and theories proposed to account for evolution. *Prerequisite*: One semester of biology or permission of the instructor.

9.250 Cell Biology (Course)

Integrated study of cell structure and function in microorganisms, plants, and animals emphasizing their ultra-structure, biochemistry, and physiology. Two hours of lecture, three hours of laboratory. *Prerequisites*: 9.102, and one semester of organic chemistry.

9.304 Comparative Plant Anatomy (Course)

Morphological and evolutionary account of plant taxa anatomy. Two hours of lecture, three hours of laboratory. *Prerequisite*: 9.102.

9.310 Invertebrate Zoology (Course)

Comparative anatomy of invertebrate animals. Emphasis on aquatic, non-parasitic forms and the evolution of higher taxa. Two lectures and two one-hour laboratory-demonstrations; week-end field trips. *Prerequisite* 9.102.

9.321 Plant Physiology (Course)

Survey of plant physiological activity. Two hours of lecture, 3 hours of laboratory. *Prerequisite*: 9.102 and one semester of organic chemistry.

9.330-9.331 Human Anatomy and Physiology I and II (Course, Course)

Two semester course. Morphologic and functional studies of mammalian systems with special reference to man, directed toward understanding of the relationship between normal and abnormal function and homeostasis. Laboratory assignments demonstrate physiologic principles. Two hours of lecture, four hours of laboratory. *Prerequisites*: 9.102 at least one semester of chemistry, and permission of department chairman.

9.335 Vertebrate Physiology (Course)

Properties and physiological processes common to all vertebrates; based on a functional study of vertebrate organ systems. Two hours of lecture, three hours of laboratory. *Prerequisite*: 9.250.

9.340 Microbiology (Course)

Microorganisms and their relation to human welfare. Primary emphasis on bacteria. Three hours of lecture. *Prerequisite*: one year organic chemistry or permission of instructor.

9.341 Microbiology Laboratory (Half-Course)

Experiments include microscopy, staining techniques, qualitative and quantitative properties of bacterial growth, physiology, and other topics. Laboratory meets six hours per week. Optional for non-biology majors.

9.356 Genetics (Course)

Basic genetic principles and concepts as revealed by classical and modern research methods. Patterns of gene transmission; gene structure, function, interactions, and mutation; chromosomal aberrations; non-chromosomal inheritance; biochemical genetics and population genetics. Three hours lecture. (Laboratory optional for non-biology majors) *Prerequisite*: one semester of Biology.

9.357 Genetics Laboratory (Half-course)

Experiments designed to illustrate basic genetic concepts utilizing materials from corn, *Drosophila*, and man. Laboratory meets three hours per week. Optional for non-biology majors.

9.359 Orientation to Medical Technology (Half-course)

Introduction to the clinical laboratory by use of films and a discussion with information about the main clinical departments. Open to any student interested in a career in medical technology. *No prerequisites.*

9.390 Independent Reading Course (Quarter-course to double course)

See page 32.

9.455 Proseminar in Biology (Half-course)

Seminar for undergraduates. Preparation and presentation of lectures and demonstrations on biological topics. *Prerequisites:* junior or senior standing in biology and permission of the instructor.

9.490 Independent Study Project in Biology (Quarter-course to double course)

See page 32.

Advanced Courses

Undergraduates enrolled in .500 level courses will receive quarter-, half-, or full course credit.

9.500 Microbial Physiology (4)

General approach to analysis of principles of intermediate metabolism of microorganisms, emphasis on bacteria. Topics included are: storage and utilization of energy, metabolic reactions of chemosynthetic organisms, metabolism associated with biosynthesis and growth. Discussion on unique physiological systems of microbes in relation to structure. Laboratories stress the diversity of physiological processes of bacteria. *Prerequisites:* General Microbiology, Organic Chemistry, (Biochemistry recommended but not required).

9.523 Bio-Ecology (4)

Aquatic and terrestrial ecology; principles stressed through extensive field work; aquatic phase with emphasis on estuarine ecosystems, terrestrial phase with emphasis on synecology in various ecosystems. *Prerequisite:* senior or graduate standing in biology.

9.525 Plant Taxonomy (4)

Study of vascular plants from phylogenetic taxonomic viewpoint. Laboratory includes preparation of herbarium specimens, techniques in preserving plants and practice in use of taxonomic keys. *Prerequisite:* senior or graduate standing in biology.

9.526 Comparative Mammalian Embryology (4)

Descriptive aspects of embryology of the mammal. Emphasis on development of the human. *Prerequisites:* 9.200 and 9.201.

9.531 Animal Histology (4)

Structures and properties of cells. Microscopic study of tissues

and organs of representative mammals, including man. Two hours of lecture, four hours of laboratory. *Prerequisite:* senior or graduate standing in biology.

9.532 Parasitism and Symbiology (4)

Life cycles, morphogenesis, physiology and behavior of symbionts emphasizing protozoan and helminth parasites; analysis of symbiotic relationships be they mutualism, cooperation, or parasitism. Laboratories deal with maintenance and study of living host-parasite systems, the physiology of host and parasite, and immune response of the host. *Prerequisite:* senior or graduate standing in biology.

9.535 Endocrinology (4)

Structure and function of endocrine glands with emphasis on their control of mammalian functional processes. Four hours of lecture, discussion, demonstrations and laboratory. *Prerequisite:* advanced standing in biology and organic chemistry.

9.541 Immunology (4)

Basic immunological principles. Emphasis on the relationship between in-vitro detection of immune factors and the in-vivo demonstration of their effects. Laboratory includes individual projects and literature reviews are required of graduate students. Two hours of lecture and four hours of laboratory. *Prerequisites:* 9.340 and senior or graduate standing in Biology.

9.543 Virology (4)

Nature and properties of plant, animal, and bacterial viruses. Laboratory techniques for cultivation and manipulation of viruses. *Prerequisites:* 9.340, one year of organic chemistry, and senior or graduate standing in biology.

9.550 Scientific Publication (4)

Tools necessary for publication of a scientific paper. Emphasis on microscopy, photomicroscopy, macrophotography, illustration, writing, editing, printing, employment. *Prerequisite:* full-time graduate standing in biology or permission of the instructor.

9.555 Water Pollution Biology (2)

Use of biological indicators of pollution in fresh water, estuarine, and salt water with emphasis on micro- and macro-fauna of the Potomac River. Lecturers deal with topics in water pollution control. Lecture and laboratory may be taken separately. *Prerequisite:* junior, senior, or graduate standing in biology.

9.556 Water Pollution Biology Laboratory (2)

Includes specific methods of collecting, identifying, counting and studying aquatic life and their responses to various types of water pollution; field trips to collect organisms, and methods of setting up fresh and salt water aquaria for maintaining aquatic ecosystems in the laboratory. Lecture and laboratory may be taken separately. *Prerequisite:* junior, senior, or graduate standing in biology.

9.560 Human Genetics (4)

Genetics of man: normal and abnormal karyotypes; human biochemical genetics; genes in individuals, kindreds and populations. *Prerequisite:* 9.356, advance standing in biology, or instructor's permission.

9.570 General Entomology (4)

Morphology, life history, classification, and economic importance of insects. Two hours of lecture, four hours of laboratory. *Prerequisite:* senior or graduate standing in biology.

9.580 Microbial Ecology (4)

Relationships between microorganisms and their environment; bacteria, fungi, algae, protozoa, actinomycetes and viruses.

The study will deal with the relations between such organisms and their sites of occurrence, their habitats, their effects upon other biota and their ultimate effect on man. Three hours of lecture and four hours of laboratory per week. *Prerequisite:* General Microbiology.

9.581 Protozoology (4)

Free-living and parasitic protozoa; their structure, function, and ecology; special taxonomic, culturing, cytological, illustrative, and photomicroscopic techniques. *Prerequisites:* advanced standing in biology and permission of instructor.

9.590 Independent Reading Course in Biology (1-6)

See page 32.

9.690 Independent Study Project in Biology (1-6)

See page 32.

9.700 Graduate Seminar (1)

Selected topics, can be repeated once.

9.730 Advanced Cell Physiology (4)

Emphasizes the structure and functions of cellular components: chromosomes, mitochondria, membranes, nuclear-cytoplasmic interactions, and chloroplasts. It also offers current information about mechanisms involved. *Prerequisites:* 9.250 and graduate standing in biology.

9.733 Radiation Biology (4)

Biological aspects of ionizing radiation in relation to the whole organism, to organ systems, cellular and subcellular structures through laboratory experiments. *Prerequisite:* graduate standing in biology.

9.752 Bacterial Genetics (4)

Genetic principles applicable to bacteria and viruses. Mutation, recombination, transformation, conversion, transduction, bacteriophage, molecular genetics. *Prerequisites:* 9.340, 9.356, and graduate standing in biology.

9.761 Experimental Embryology (4)

Mechanisms of fertilization, differentiation and growth of vertebrates. Laboratory projects include experimental tests with selected vertebrate embryonic tissue cultures. Two hours of lecture, three hours of laboratory. *Prerequisite:* graduate standing in biology, 9.200, 9.201, 9.525.

9.797 Master's Thesis Research (3-6)

MEDICAL TECHNOLOGY

The following courses (9.360 through 9.369) are open only to senior students in the Medical Technology program. See page 32 for admission requirements and contact Dr. William Banta in Hurst Hall 6.

9.360 Blood Bank (One and One-Quarter Courses)

Genetics of blood groups and sub-groups. Donor screening and recruitment, blood processing, component preparations, transfusion reactions, AABB and NIH standards. Lecture and laboratory. *Prerequisite:* Senior in Medical Technology.

9.361 Clinical Parasitology (Half-course)

Identification of human protozoan and helminth parasites by

microscopic, chemical and immunologic techniques. Invertebrate parasite vectors. Lecture and laboratory. *Prerequisite:* Senior in Medical Technology.

9.362 Immunology and Serology (Quarter-Course)

Principles of the immune response from a clinical point of view. Serological testing, heterophile tests, fluorescent antibody theory and technique, febrile agglutination, anti-streptolysin titre, latex procedures, colloidal gold and complement fixation theory. *Prerequisite:* Senior in Medical Technology.

9.363 Urinalysis and Clinical Microscopy (Quarter-Course)

Study of the urine to infer renal function. Anatomy and physiology of the urinary system, physical and chemical characteristics of normal and pathologic urine. Renal function tests, introductory histopathology, slide preparation, frozen sections, quality control procedures. Lecture and laboratory. *Prerequisite:* Senior in Medical Technology.

9.364 Hematology (One and One-Half Courses)

Hematopoiesis, morphology of red and white blood cells, hemoglobinopathy, hematology case studies. Emphasis on differential white cell counts to determine pathological abnormalities. Lecture and laboratory. *Prerequisite:* Senior in Medical Technology.

9.365 Laboratory Management and Basic Statistics (Quarter-Course)

Introduction to research evaluation, application of statistics to interpreting laboratory results, reading scientific articles, care and handling of instruments, quality control, personnel and public relations. Lecture and laboratory. *Prerequisite:* Senior in Medical Technology.

9.366 Clinical Chemistry (One and One-Quarter Course)

Principles underlying biochemical diagnosis of human disease. Analytical chemistry, protein-free filtrates, chemical fractionation of protein, lipids and liver function tests, inorganic substances, classification and determination of enzymes, acid-base balance, hormones and toxicology. Lecture and laboratory. *Prerequisite:* Senior in Medical Technology.

9.367 Clinical Microbiology and Mycology (One and Three-Quarters Courses)

Diagnosis of disease caused by bacteria, fungi, and viruses. Bacterial morphology, physiology, and genetics. Immune theory, cultivation of pathogens. Tissue and organ culture. Identification of microbes. Lecture and laboratory. *Prerequisite:* Senior in Medical Technology.

9.368 Coagulation (Quarter-Course)

Acquired and genetic pathological bleeding conditions. Assay for blood proteins involved in blood clot formation. Bone marrow response to coagulopathy. Lecture and laboratory. *Prerequisite:* Senior in Medical Technology.

9.369 Clinical Pathology (Quarter-Course)

A summary and correlation of Medical Technology courses

taken in the senior year. How to write scientific and technical papers. Students write a paper comparing two laboratory methods. *Prerequisite:* Senior in Medical Technology.

Business Administration

Undergraduate students enrolled in .500 level courses receive one course unit.

Independent Study—In all programs of the school, students may register for independent study courses. General regulations governing these are found on page 32.

Courses available are:

10.001 Q. Student Orientation (No course value)

Required of all freshmen and transfer students with less than 30 credit hours.

10.201 Business Law (Course)

Scope of Business Law. Individual, business, legal relationship. Legal concepts, philosophy, and functions. Federal, state court systems. Survey coverage of contracts, sales, agency, business forms, property. Introduction to negotiable instruments.

10.206 Introduction to Financial Accounting (Course)

Basic principles and underlying concepts. Assets, equities, fundamentals of income measurement, financial statements. Uses, limitations of financial data. Current reporting practices. Appraisal of accounting.

10.207 Accounting Methods (Half Course)

Fundamental methods and techniques. Introduction to systems of data accumulation and analysis. Manual and computer practice cases. *Prerequisite:* 10.206 (Introduction to Accounting) or permission; 10.207 should be taken concurrently with 10.208 (Managerial Cost Accounting) if student plans further study in Accounting.

10.208 Managerial Cost Accounting (Course)

Use of accounting data for planning, control and decision making. Basic concepts and techniques. Responsible accounting performance measurement. Standard cost and flexible budgets as a management tool. Cost analysis for management planning and control, special decision-making. *Prerequisites:* 10.206 (Introduction to Financial Accounting); 10.207 (Accounting Methods) should be taken concurrently with 10.208 if student plans further study in Accounting.

10.256 Management of Organizations (Course)

Nature of management, the systems concept, management theories, ethics, planning, information systems, decision-making, organization, leadership, communications, behavioral science and control.

10.302 Advanced Business Law (Course)

Specific in-depth coverage of the functions, form and content of commercial paper. Law of real and personal property. Legal bibliography. In-depth study of the legal requirements of business. Case research. *Prerequisite:* 10.201 (Business Law).

10.308 Intermediate Accounting (Course)

Nature, valuation of assets and equities; measurement of business income. Generally accepted accounting principles and procedures. Financial reports and analysis. *Prerequisites:* 10.207 (Accounting Methods) and 10.208 (Managerial Cost Accounting) or permission of Accounting Dept.

10.309 Advanced Accounting (Course)

Consolidated financial statements. Partnership accounting, business organizations and business combinations. Estate, trusts, and other fiduciary accounting. *Prerequisite:* 10.308 (Intermediate Accounting).

10.365 Corporation Finance (Course)

A basic course on corporate financial structure; sources, acquisition and management of short-term and long-term funds in both the money and capital markets; money market instruments; the valuation and analysis of corporate capital structure in terms of risk, control, and flexibility. *Prerequisite:* 10.206 (Introduction to Financial Accounting).

10.390 Readings in Business Administration (Quarter Course to Double Course)

General regulations Governing independent study courses are found on page 32.

10.410 Accounting: Readings and Problems (Course)

Selected topics in financial accounting focusing on current issues. *Prerequisite:* 10.309 (Advanced Accounting) or permission.

10.411 Advanced Cost Accounting (Half-course)

Continuation of 10.208. Advanced treatment of selected topics. Including standard cost and variance analysis.

10.421 Auditing (Course)

Audit objectives. Framework of auditing standards. Basic auditing procedures, techniques. Nature and function of audit working papers. Tests and sampling in the auditing process. *Prerequisite:* 10.309 (Advanced Accounting).

10.431 Fundamentals of Income Tax (Course)

Introduction to federal taxation relating to corporations, individuals and partnerships. *Prerequisite:* 10.206 (Introduction to Financial Accounting).

10.442 Business Economics (Course)

National economic, fiscal, monetary policy and the process of economic growth. Emphasis on application of economic principles, methods of economic analysis, micro-economic theory. For M.B.A. and Ph.D. Students without 6 hours of economics; not open to undergraduates.

10.452 Business Responsibility in American Society (Course)

The historical and contemporary role of the American firm as a social, political and economic institution. The social responsibility of business to its publics. Heavy emphasis on student participation, cases.

10.453 Business-Government Relations (Course)

Government impact on business decisions. Government regulations, control and promotion of business. Corporate political activity. Current and future issues in business-government relations. Guest lecturers. *Prerequisite:* Junior or senior standing.

10.455 Quantitative Analysis (Course)

Mathematical tools necessary for the solution of business problems under conditions of certainty and uncertainty. Introduction of concepts underlying decision-making. Emphasis upon the understanding of modern techniques rather than technical proficiency. *Prerequisites:* all SBA requirements in economics, math, statistics, computers.

10.458 Management: Policy and Practice (Course)

Integration of principles and concepts previously studied in individual courses. Analysis, definition, proposed resolution of business problems from managerial viewpoint. Case problem method, seminar approach. *Prerequisite:* last semester senior standing.

10.468 Financial Decision Making (Course)

Financial management, including cost of capital, capital budgeting, working capital management, and long-term financing. Emphasis on both theoretical and applied techniques through discussion and case study viewed from both the corporate user of funds and the investor as supplier. *Prerequisite:* 10.365 (Corporation Finance).

10.469 Investment Analysis (Course)

Basic securities analysis and selection. Investment objectives. Methods of appraising corporate equity and debt securities. Investment timing, Dow Theory, dollar cost averaging, formula planning. Analysis of market fluctuations. Sources of information. *Prerequisite:* 10.365 (Corporation Finance).

10.490 Independent Project in Business Administration (Quarter Course to Double Course)

General regulations governing independent study courses are found on page 32.

10.491 Principles of Employee Relations (Course)

Philosophy, operation of employee relations system in United States: principal economic, social, managerial factors involved in its operation in terms of management of personnel and labor management relations. *Prerequisite:* junior standing.

10.492 Labor Relations Principles (Course)

Intensive analysis of the collective bargaining process, with emphasis on the historical, legal, economic, social, and behav-

ioral aspects of union-management relationships in both the private and public sector. *Prerequisite:* 10.491 (Principles of Employee Relations).

10.493 Personnel Management Operations (Course)

Techniques generally utilized (including computer applications) in personnel budgeting, manpower control, recruitment, performance rating, wage and salary administration. *Prerequisites:* 10.491 (Principles of Employee Relations).

10.532 Advanced Income Taxes (3)

Advanced aspects of particular interest to accountants, lawyers. Special problems of federal income taxes, including estates, trusts, corporate and partnership liquidations, distributions, reorganizations, special transactions. Federal gift, estate taxes. *Prerequisite:* 10.431 (Fundamentals of Income Tax) or permission. Spring.

10.590 Readings in Business Administration (1-6)

General regulations governing independent study courses are found on page 32.

10.603 Managerial Accounting (3)

Fundamentals, with concentration on uses of accounting as a tool of management. Designed to give an understanding of strengths and limitations of accounting as means of providing information. Topics have been selected from spectrum of accounting which focus upon underlying conceptual framework, role of accounting as tool for planning and controlling the activities of the enterprise and usefulness and limitations of accounting data for evaluating the results of operations.

10.604 Business in its Social Environment (3)

Analysis of the firm in its social setting. History of business in its social environment. Relationship of business to the social, political and economic philosophies, institutions and groups which comprise its environment. Impact of its environment upon the present and future status of the firm.

10.605 Financial Management (3)

Rigorous examination of financial management theory viewed from both corporation as user of funds and investor as supplier of funds. Emphasis upon interdependency between security analysis and cost of funds to corporation; introduction to security analysis, cost of capital, capital budgeting, evaluation and selection of corporate assets, and portfolio problems for both the corporation and the investor. *Prerequisite:* 10.603 (Managerial Accounting).

10.606 Managerial Statistics (3)

A systematic treatment of methods of analysis and inference applied to managerial problems; use of computers. Free use of supervised laboratory available to review basic mathematical material. *Prerequisites:* 10.605 (Financial Management), 10.642 (Managerial Economics).

10.607 Quantitative Methods (3)

Introduction to quantitative methods of decision-making and operations research; mathematical models; decision theory; use of computers. Free use of supervised laboratory workshop available to review basic mathematical material. *Prerequisite:* 10.606 (Managerial Statistics) or equivalent.

10.608 Theories of Organizational Behavior (3)

Theory and research in behavioral sciences focusing on manag-

er's role in dealing with formal and informal organizations, authority, power, responsibility, delegation, leadership, motivation, communication, interpersonal and group process. Objective-to develop understanding of behavior concepts, and theories and models as foundation for managerial practice.

10.609 Case Studies in Organizational Behavior (3)

Social, psychological and managerial issues involved in managing organizations discovered through extensive use of cases. Topics covered include: inter- and intragroup dynamics; conflict resolution; organizational change; personal and organizational growth, motivation, leadership and decision making. *Prerequisite:* 10.608 (Theories of Organizational Behavior).

10.634 Systems Design and Installation (3)

Techniques of analyzing, designing accounting systems for effective managerial control. Adapting accounting procedures to organizations of various types and sizes. Demonstration of important machine methods. *Prerequisite:* 10.411 (Advanced Cost Accounting) or permission.

10.639 Controllershship in Business (3)

Controller's functions. Emphasis on interpretation of accounting aspects of managerial problems, reporting. Role as staff member of management team. *Prerequisite:* 10.603 (Managerial Accounting).

10.641 Business Forecasting (3)

Tools needed by executives to evaluate appraisals of economic outlook in decision-making. Business cycles; fluctuation of income and employment; economic and business indicators. Recommend 10.442 (Business Economics) or 6 semester hours of economics for Ph.D. candidates and M.B.A. candidates electing Managerial Analysis as comprehensive field.

10.642 Managerial Economics (3)

Fundamental analytical tools of economics applicable to decision-making. Research of empirical and theoretical studies, evaluation of their application to economic analysis in management. Recommend 10.442 (Business Economics) or 6 semester hours of economics and 10.641 (Business Forecasting) for Ph.D. candidates and M.B.A. candidates electing Managerial Analysis as comprehensive field.

10.643 Managerial Analysis (3)

Integration of economic, organizational, motivational, legal, ethical and other managerial aspects in solving national and international business problems. Profits; pricing; capital expansion; planning; control. Required of Ph.D. candidates and M.B.A. candidates electing Managerial Analysis as comprehensive field. *Prerequisites:* 10.641 (Business Forecasting) and 10.642 (Managerial Economics).

10.665 Financial Statement Analysis (3)

Appraisal of prevailing techniques of statement analysis. Significance of "generally accepted accounting principles". Development of meaningful analytic methods from viewpoint of financial management. *Prerequisite:* 10.605 (Financial Management).

10.667 Working Capital Management (3)

Managerial knowledge of the money market from the viewpoint of the financial manager in meeting short-term requirements and investing temporarily excess idle funds; means of investing idle funds commensurate with risk and return; emphasis on the techniques used in management of corporate, short-term in-

vestment portfolio. *Prerequisite:* 10.605 (Financial Management).

10.668 Advanced Investment Analysis (3)

Critical evaluation of current methods of securities analysis and selection. Investment theories and timing. Portfolio construction and management. *Prerequisite:* 10.605 (Financial Management).

10.671 Commercial Banking Policies (3)

Factors determining management policies, services offered by individual banks. Internal: capital resources, market development, profitability of functions, relations to other banks. External government regulation, economic conditions. For present and prospective bank officers. *Prerequisite:* 10.605 (Financial Management).

10.680 Regulation and Control of Business: Theory and Practice (3)

Theory and practice of government regulation and control of business. Antitrust, administrative enforcement and rule making. Impact of regulation and control on decision-making. Future trends in regulation and control. *Prerequisite:* 10.604 (Business in its Social Environment) or permission.

10.690 Independent Project in Business Administration (3-6)

General regulations governing independent study courses are found on page 32.

10.692 Collective Bargaining and the Public Interest (3)

Examination of classic and current theory of collective bargaining in terms of economic and political impact upon the public interest. *Prerequisite:* Permission of instructor.

10.694 Seminar in Employee Training and Development (3)

Analysis by individual or group research of current problems in employee development and training at all levels, with particular emphasis on middle management development. *Prerequisite:* Permission of instructor.

10.695 Industrial Relations: The Legal Environment (3)

Survey of legal environment of the industrial relations system: the collective bargaining process in terms of governmental regulation. *Prerequisite:* Permission of instructor.

10.697 Labor Relations Management (3)

Examination, by case studies, selected readings of management philosophy, strategy, tactics in collective bargaining; management's legal rights, responsibilities and impact of collective bargaining on management functions and employee relations. *Prerequisite:* 10.695 (Industrial Relations: The Legal Environment) or permission.

10.701 Seminar in Corporate Public Affairs (3)

The corporation in its political environment. Corporate political/community problems. The mission of the public affairs

department and program. Washington and State Capitol representation. *Prerequisite:* 10.604 (Business in its Social Environment) or permission. Spring.

10.705 Seminar in Current Business-Government Relations Problems (3)

In-depth study of current problems involving business and government. Topics to be determined. Individual study, research. Emphasis on the impact of current problems on corporate-government relations. *Prerequisite:* 10.604 (Business in its Social Environment) or permission. Fall.

10.706 Business Decisions and Government Policy (3)

Philosophy and practice of business decisions influenced by public policy. Emphasis on case problems. Reading and individual research into the in-depth analysis of the concepts and issues of private enterprise and public policy. *Prerequisite:* 10.680 (Regulation and Control of Business: Theory and Practice), 10.701 (Seminar in Corporate Public Affairs) or 10.705 (Seminar in Current Business-Government Relations Problems) or permission. Fall.

10.710 Contemporary Accounting Problems (3)

Nature of accounting principles and postulates. Consideration of major problems of income measurement and related problems of assets and equity valuation. *Prerequisite:* permission. Fall.

10.711 Seminar in Accounting Theory (3)

Development of accounting theory. Analysis of current accounting problems. Review of current literature. Required of M.B.A. and Ph.D. candidates taking Accounting Comprehensive Examination. *Prerequisite:* Permission. Spring.

10.742 Seminar in Managerial Analysis (3)

Development of decision-making skills through analytical case studies. Oral and written reports, discussion, research. Required of Ph.D. students. *Prerequisites:* 10.643 (Managerial Analysis) and completion of both tools of research.

10.743 Doctoral Seminar in Managerial Analysis Literature (3)

Reading and analysis of major contributions to philosophy, methodology, concepts. Group analysis, seminar discussion, individual research projects. Required of Ph.D. students; open to superior M.B.A. students on permission of instructor. *Prerequisite:* 10.643 (Managerial Analysis).

10.755 Seminar in Management of Enterprise (3)

Operating problems and strategies, organizational communication, leadership, motivation and morale, systems theory and optimization of resource utilization, integration of organizational activity within systems concept. Use of cases: use of management games to simulate and study dynamic relationships of organization. *Prerequisite:* 10.609 (Case Studies in Organizational Behavior).

10.760 Doctoral Seminar in Management Literature (3)

Reading and analysis of major contributions to philosophy, methodology, concepts of management, human relations, other basic areas. Group analysis, seminar discussion, individual re-

search projects. Required of doctoral candidates; open to superior M.B.A. candidates on permission of instructor.

10.765 Seminar in Finance (3)

Rigorous examination of current issues and recent developments in corporate financial management, investments, and commercial banking. Review of literature to cover total area of business finance. *Prerequisite:* permission of Director.

10.791 Seminar in Personnel and Manpower Management (3)

Individual, group research in current problems, developments in personnel and manpower management. Required of all master's and doctoral candidates choosing industrial relations and/or personnel management as comprehensive examination field. *Prerequisite:* permission of area studies director.

10.792 Seminar in Industrial Relations (3)

Individual, group research in current problems, developments in collective bargaining. Required of all master's and doctoral candidates choosing industrial relations and/or personnel management as comprehensive examination field. *Prerequisite:* permission of instructor.

10.795 Seminar in Manpower Management (3)

Use of selected case problems to develop integrated conceptual philosophy of manpower management role and function of manpower administrator in its application. Required of all master's and doctoral students selecting personnel management and/or industrial relations as comprehensive examination field. *Prerequisite:* permission of instructor.

11.300 Basic Marketing (Course)

Role of marketing as a philosophy of modern business management; the inter-relationships among marketing, production, transportation and the total economy. With a macro-approach, it emphasizes social and economic aspects of marketing, and identifies prevailing concepts, functions, institutions, and terminology. Explains relationships among consumers, business and government. *Prerequisite:* 19.100 (Introduction to Economics).

11.401 Markets and Buyer Behavior (Course)

Nature and measurement of markets for consumer and industrial goods and services. Market segmentation and market targeting. Factors influencing purchasing decision. Consumerism. *Prerequisite:* 11.300 (Basic Marketing).

11.402 Marketing Research (Course)

Emphasis placed on the underlying scientific principles and processes that make marketing research an applied science. Information collection, interpretation, and presentation for shaping marketing objectives, policies, and planning. Role of more effective marketing of goods and services. *Prerequisite:* 69.202 (Basic Statistics) and 11.401 (Markets and Buyer Behavior).

11.403 Marketing Problems (Course)

Role of marketing management in business. Practical applications of marketing thought and theory in decision-making for the marketplace, in-depth analysis of marketing problems. *Prerequisite:* 11.402 (Marketing Research) or permission.

11.404 Product Planning and Pricing (Course)

Product development planning. Marketing strategy in introduc-

ing new products and services. Pricing decisions and implementation in marketing of products. Role of demand determination in pricing policies. Pricing in free marketplace. Government and pricing policies. *Prerequisite:* 11.401 (Markets and Buyer Behavior).

11.405 Distribution Systems (Course)

Examination of marketing managerial issues and problems in distribution through the use of an integrated channel of distribution approach. Investigates problems involved in the relation in trade channels for goods and services, and the subsequent management of those channels for optimum efficiency. Viewpoints of manufacturer, wholesaler, and retailer. *Prerequisite:* 11.300 (Basic Marketing). Spring.

11.411 Advertising Principles (Course)

Major promotional operations which comprise a firm's promotional "mix" including advertising, sales promotion, merchandising, public relations or institutional promotion, and personal selling; approached from an analytical and managerial point of view. Emphasis directed to processes of formulation of promotional strategies and policies, development of integrated promotional programs, and evaluation of promotional efforts. *Prerequisite:* 11.300 (Basic Marketing).

11.426 Fundamentals of International Business (Course)

Survey of the ever changing nature, methods and extent of international business, and of the various environments within which it operates: socio-cultural, economic, legal, political, and financial. Important trends and vital current issues are examined against relevant background information presented in the texts and assigned readings. *Prerequisite:* 11.300 (Basic Marketing).

11.470 Urban Development (Course)

Economic and other objectives in urban society. Community objectives and organization. Provision of public facilities through political process. Public welfare, private profit and business-government relations. Economic base and inter-industry analysis. City growth and structure. Applications of planning, programming and budgeting to management of privately owned real estate resources and to provision of public facilities. Relationship of urban problems to contemporary business.

11.471 Housing and Social Control (Course)

Housing goals, problems, and programs. Real Estate ownership, interests, and social control. Limitation on private control by public authority and private control. Transfer of rights and encumbrances on rights. Use of private enterprises to meet housing needs. Operation of housing markets.

11.472 Residential Construction (Course)

Multi-family, single-family, and factory-built modular housing construction. Site selection, land planning, economic analysis, zoning, building codes, construction techniques and materials, management and financing.

11.476 Real Estate Investment Strategy (Course)

Investment objectives, risks and rewards. Resource characteristics and administration. Development decision and analysis, mortgage finance, cost and availability of funds, location analysis, property analysis and valuation. *Prerequisites:* 11.471

(Housing and Social Control) and 11.472 (Residential construction).

11.601 Marketing Management (3)

Introduction to advanced theory and systems-oriented analytical methodology required for effective marketing management decision-making. Viewpoint is that of marketing executive whose responsibility is coordination of objectives and resources of firm with opportunities existing in market; whose strategies and tactics relate to the basic administrative processes of analysis, organization, planning and control. Approach is analytical rather than descriptive, drawing heavily upon the disciplines of economics, behavioral science, and mathematics.

11.602 Consumer Behavior (3)

Examines various processes and factors which influence consumer motivation and behavior. Explores consumer decision-making processes and their marketing implications. *Prerequisite:* 11.601 (Marketing Management) or permission.

11.603 Industrial and Consumer Markets (3)

Covers nature and extent of markets for industrial and consumer goods and services; methods of anticipating and meeting industrial, governmental, institutional, and consumer needs; market targeting, development of marketing mixes. *Prerequisite:* 11.601 (Marketing Management) or permission.

11.604 Research for Marketing Management (3)

Emphasis is placed on the underlying scientific principles and processes that make marketing research an applied science. Information collection, interpretation, and presentation for shaping marketing objectives, policies, and planning. Emphasis is placed on the application of concepts, methods, and knowledge of the quantitative and behavioral disciplines. These learning objectives are facilitated through individual or group research projects. *Prerequisites:* 10.606 (Managerial Statistics), 11.602 (Consumer Behavior), and 11.603 (Industrial and Consumer Markets).

11.605 Promotion Management (3)

Problems involved in the management of promotional operations in the firm including advertising, sales promotion, merchandising, personal selling, public relations, and institutional promotion—individually, and as integrated into strategically coordinated promotional programs—are approached from a managerial point of view. The course is considered foundational for students seeking careers in sales, advertising or public relations. *Prerequisite:* 11.601 (Marketing Management) or permission. Fall.

11.606 Distribution Channels Management (3)

Examination of marketing managerial issues and problems in distribution through the use of an integrated channel of distribution approach. Investigation of problems involved in the relation of trade channels for goods and services, and the subsequent management of those channels for optimum efficiency. Viewpoints of manufacturer, wholesaler, and retailer are presented. Emphasis is placed on individual projects related to the content of the course. *Prerequisite:* 11.603 (Industrial and Consumer Markets). Fall.

11.607 Product Planning and Pricing (3)

Product development and planning. Cost analysis. Pricing policies and practices in the marketing of goods and services. New product introductions and life cycle planning. Product modification. Planning the product line. *Prerequisite:* 11.603 (Industrial and Consumer Markets). Spring.

11.627 Export/Import Management (3)

International trade organizations, marketing information, relations with governments (tariffs, permits, trade centers, etc.), getting the order, physical distribution, insurance, costing and pricing, collecting. Fall.

11.628 International Marketing (3)

Origins and development of marketing; modern advanced-country technology; international deployment of market research, physical distribution management, sales personnel selection, training and supervision methods; media selection; advertising themes and methods of presentation; planning and projective budgeting. Fall.

11.629 The Multinational Firm (3)

History, legal environment, organization and control, finance, marketing, production and procurement, research and development, personnel, business-government and business-public relations. Spring.

11.640 Research Methods in Business (3)

The principles of acquiring and processing data and presenting information. A variety of research methods will be surveyed to analyze form of hypothesis development, methods of experimental design and approaches to data reduction and interpretation. Applications to data analysis of business problems. Students will design, process and evaluate research proposals. *Prerequisite:* satisfactory completion of all first year M.B.A. courses or equivalents.

11.683 Real Estate Market Analysis (3)

Analysis of real estate demand, supply in a local market. Sources of information. Analysis of population, changing city and housing markets. Forecasting. Spring only.

11.684 Mortgage Banking (3)

Financing methods. Sources of funds, mortgage and capital markets, federal agencies. Direct lending. Required of students electing an M.B.A. field in real estate and urban development planning. *Prerequisite:* 10.605 (Financial Management).

11.685 Land Planning and Use (3)

Land values and utilization. Location problems of consumers, businesses, industries, households. Changes in land use patterns produced by market forces and public policies.

11.701 Seminar in Marketing Theory (3)

This is the capstone course for the advanced degree in marketing and is intended to ensure a full understanding of the concepts and theories of marketing and their interrelations in application; a knowledge of current research and advances in the field; and to develop skill in critical evaluation of the concepts and theories and their application in solving business problems. *Prerequisite:* Permission of director.

11.726 Seminar in International Business (3)

Actual experiences of identified companies (to permit follow-up) and of public bodies (Port Authorities, planning commissions, tourist promotion associations). *Prerequisite:* 11.629 (The Multinational Firm). Spring.

11.776 Seminar in Real Estate Administration (3)

Capstone seminar dealing with problems of managing real estate resources and related business enterprises. Management

of urban development process and environment. Cases and/or computerized urban system model. Required of students electing an M.B.A. field in real estate and urban development planning.

11.778 Seminar in Land Planning and Use (3)

Land planning, use from interdisciplinary point of view. Roles of land economics, government planning, private sector. Urban renewal, new towns. Metropolitan problems. Required of students electing an M.B.A. field in real estate and urban development planning. *Prerequisite:* permission of area studies director. Spring.

11.779 Seminar in Housing and Urban Development (3)

Housing goals, federal policy, local programs, role of private enterprise. Sources, uses of development capital, inter-regional flow of funds, mortgage market problems. Technology; housing for low-income families; information, data systems; infrastructure. *Prerequisite:* permission of area studies director.

11.780 Doctoral Seminar in Literature of Real Estate and Land Planning (3)

Reading, analysis of major contributions to philosophy, methodology, concepts. Group analysis, seminar discussion, individual research projects. Required of doctoral candidates; open to superior M.B.A. candidates on permission of instructor. See area studies director.

11.792 Seminar in Management Planning and Control (3)

Concepts and requirements of planning and control systems. Analytical tools required for output-oriented program structure. Application of measurements to management information systems with emphasis on interdependence between quantitative and behavioral fields. Comparison between profit and public oriented budgetary processes. *Prerequisite:* satisfactory completion of all M.B.A. first-year requirements or equivalents.

11.794 Simulation and Gaming (3)

Models and model building; simulations of continuous and discrete systems; business games. *Prerequisites:* satisfactory completion of all first-year M.B.A. courses or equivalents.

11.795 Seminar in Operations Analysis (3)

Problems of practical application of management science techniques. Students will be expected to formulate research projects. Supervised research and discussion. *Prerequisite:* permission of area studies director.

11.796 Doctoral Literature Seminar in Operations Analysis (3)

Discussion of current literature in Operations Analysis field. Emphasis on quantitative techniques applicable to interdisciplinary studies and their application in fields of interest to management. *Prerequisite:* permission. Restricted to doctoral candidates.

12.462 Transportation and Logistics Distribution (Course)

Spatial relations; economics of transportation service, location of population and industry, scope and pattern of markets, factors and principles of transportation; factors in design of logistics system for a firm, industry location, and role of transportation, inventory control, warehousing, material handling, com-

munication and order processing in design and operation of efficient logistics systems which provide total control in terms of time and cost to meet required service standards in distribution. *Prerequisite:* 11.300 (Basic Marketing).

12.661 Principles and Problems of Transportation (3)

Relation of transportation to economics, political and social organization and to national development. Economic theory as applied to transportation. Regulation and national transportation policy.

12.662 Transportation Management (3)

Selected case problems in transportation management. Location of facilities, equipment selection and financing, market analysis, scheduling, and business-government relations. Management problems of the transport modes. *Prerequisite:* 12.661 (Principles and Problems of Transportation) or permission.

12.663 International Transportation Problems (3)

Current problems in international ocean and air transportation. Economic and political aspects of operations and service. *Prerequisite:* 12.661 (Principles and Problems of Transportation) or permission.

12.665 Physical Distribution Management (3)

Control of physical distribution of products from origin of supplies to final distribution to the consumer. Plant location theory, warehouse establishment and use, inventory control, materials handling. Role of transportation in distribution. Case studies in business logistics. *Prerequisite:* 12.661 (Principles and Problems of Transportation) or permission.

12.670 Interstate Commerce Law and Commission Practice (3)

Rules of procedure before Interstate Commerce Commission; rules of law; decisions of special interest in traffic administration; practitioner's code of ethics; due process; preparation of cases. *Prerequisite:* 12.665 (Physical Distribution Management).

12.672 Urban Transportation (3)

Development and problems of land use; place in metropolitan planning; adjustment to changes in population, industry, social life; financing; local transit authorities; interstate and regional compacts; rates; service; traffic. *Prerequisite:* 12.661 (Principles and Problems of Transportation) or permission.

12.740 Seminar in Corporate Public Relations Policy (3)

Formulation of public relations policy at corporate level. Definition and uses of public relations policies in business management decisions. Relationship of corporate objectives and public relations. Case/individual study. Spring.

12.762 Seminar in Transportation (3)

Analysis of transportation problems through supervised research projects. Both domestic and international transportation. Urban transportation. *Prerequisite:* at least 6 hours of graduate credits in Transportation, and permission. Spring.

12.799 Doctoral Dissertation Seminar (3-12) **Institutes in Business**

Administration

See Institutes, page 00.

Chemistry

15.101 Chemistry and Society (Course)

Chemistry and human experience. Structure of the atom and the molecule, bonds and their properties. Organic chemistry and biochemistry. Chemical technology. Poisons. Population, food, and the environment. Energy sources. (Not for Science Majors)

27.100 Earth Sciences (Course)

Survey of earth features and processes: time, weather, climate, the oceans, minerals, rocks, landforms, glaciers, volcanoes, earthquakes, origin and development of life, geologic history, resources.

15.120 General Chemistry I (Course)

Atomic theory, electronic configuration, bonding, molecular structure, periodic table, gases. Must be taken concurrently with 15.121. Three hours of lecture and one hour of seminar.

15.121 General Chemistry I Laboratory (Quarter-course)

Laboratory work associated with the theoretical material in 15.120. Must be taken concurrently with 15.120. Three hours of laboratory.

15.130 General Chemistry II (Course)

Kinetics and equilibrium. Thermodynamics. Electrochemistry. The elements and their compounds treated systematically. Must be taken concurrently with 15.131. Three hours of lecture and one hour of seminar. *Prerequisite:* 15.120.

15.131 General Chemistry II Laboratory (Quarter-course)

Laboratory work associated with the material in 15.130. Qualitative inorganic analysis. Must be taken concurrently with 15.130. Three hours of laboratory.

15.160 Natural Sciences (Course)

Science-content oriented course designed around the Science Curriculum Improvement Study (SCIS), American Association for the Advancement of Science (AAAS), and Conceptually Oriented Program in Elementary Science (COPES) programs for elementary school science. Life and physical sciences. Laboratory work with SCIS materials and kits. Three hours of lecture, one hour of seminar, one hour of laboratory.

15.161 Natural Sciences II (Course)

Continuation of the life and physical sciences material from SCIS, AAAS, and COPES programs. Laboratory work with AAAS and COPES materials and kits as well as from the Elementary Science Study (ESS) program. Teaching this material in a model school. Three hours of lecture, one hour of seminar, one hour of laboratory.

15.200 Chemical Principles (Course-and-one-quarter)

Advanced placement for those with good background in high school chemistry. Emphasis on theories of general chemistry. Students must complete the year's work with 15.210 and 15.211. Three hours of lecture, three and one-half of laboratory project work.

15.210 Qualitative Inorganic Analysis (Course)

Inorganic solution chemistry. *Prerequisite:* 15.111 or 15.200.

15.211 Qualitative Inorganic Analysis Laboratory (Quarter-course)

Practice of separation and characterization of familiar ions. Students who have had 15.111 need not take this course. Three hours of laboratory. *Prerequisite:* 15.200.

15.310 Organic Chemistry I (Course)

Systematic and theoretical treatment of aliphatic and aromatic hydrocarbons, alcohols, halides, and ethers. ionic and free radical reactions. Stereochemistry. Must be taken concurrently with 15.311. Three hours of lecture and one hour of seminar. *Prerequisite:* 15.130.

15.311 Organic Chemistry I Laboratory (Half-course)

Laboratory theory and practice in synthesis. Introduction to organic qualitative analysis. Must be taken concurrently with 15.310. Six hours of laboratory. *Prerequisite:* 15.130.

15.320 Organic Chemistry II (Course)

Aliphatic and aromatic acids, nitrogen compounds, carbonyls, and their derivatives. Introduction to polyfunctional compounds. Must be taken concurrently with 15.321. Three hours of lecture and one hour of seminar. *Prerequisite:* 15.310.

15.321 Organic Chemistry II Laboratory (Half-course)

Synthesis of polyfunctional compounds. Qualitative organic analysis. Introduction to infrared techniques and gas chromatography. Must be taken concurrently with 15.320. Six hours of laboratory. *Prerequisite:* 15.311.

15.350 Quantitative Analysis (Course)

Theory of acid-base, complexation, precipitation, and redox equilibria. Volumetric and gravimetric analyses. Separations. Statistical analysis of data. Spectrophotometry, potentiometry, and coulometry. Three hours of lecture and one hour of seminar. *Prerequisite:* 15.130, 41.111.

15.351 Quantitative Analysis Laboratory (Half-course)

Practice of gravimetric and volumetric analysis. Use of a spec-

trophotometer, a pH meter and a coulometer. Analysis of mixtures and commercial products. Project work. Must be taken concurrently with 15.350, six hours of laboratory. *Prerequisite:* 15.130, 41.111.

15.390 Independent Reading Course in Chemistry (Quarter-course to Double Course)

See page 32.

15.410 Physical Chemistry I (Course)

Atomic molecular structure (theoretical and experimental); quantum chemistry. Thermodynamics and spectroscopy. Gases. *Prerequisites:* 15.320, 51.121, 41.223.

15.411 Physical Chemistry I Laboratory (Half-course)

Mathematical techniques, high vacuum systems, gamma of gases, heat of combustion, thermocouples, refractometry, fluid viscosity, rates of reactions, electrical conductivity, ionization constants, free energy enthalpy and entropy of an electrochemical reaction. Must be taken concurrently with 15.410.

15.420 Physical Chemistry II (Course)

Chemical kinetics. Liquids and solids. Colligative properties and electrolytes. Electrochemistry, adsorption, catalysis, and polymers. *Prerequisite:* 15.410.

15.421 Physical Chemistry II Laboratory (Half-course)

Atomic spectra, Franck-Hertz, the oscilloscope, the electro-scope, Kerr effect, Faraday effect, Hall effect, magnetic susceptibility, dielectric constant, spectrum of Beta-carotene, viscosity of polymers, molecular weight by light scattering, critical surface tension. Must be taken concurrently with 15.420.

15.460 Instrumental Quantitative Analysis (Course)

Theory of optical and electroanalytical methods, including spectrophotometry, fluorimetry, spectrography, flame and atomic spectroscopy, selective ion electrodes, polarography, amperometry. Mass spectrometry. Chromatography. Electronics. Analysis of errors. *Prerequisites:* 15.350, 15.410, 41.222.

15.461 Instrumental Quantitative Analysis Laboratory (Half-course)

Practice in optical, electroanalytical and other instrumental methods. Project work. Must be taken concurrently with 15.460. *Prerequisite:* 15.410, 15.350 and 15.351.

15.490 Independent Study Project in Chemistry (Quarter-course to Double Course)

See page 32.

15.491 Cooperative Work-Study Program (No credit)

Work and study at cooperating research laboratories for six-month periods. Contact Dr. Doris Hadary for information. *Prerequisite:* permission, Dr. Hadary.

Advanced Courses

Undergraduate students enrolled in .500 level courses receive one course unit. Undergraduates enrolled in Biochemistry must take both the lecture and laboratory for one and one quarter course credits.

15.520 Advanced Organic Chemistry I (3)

Principles of physical organic chemistry. Bonding and conformational analysis; nucleophilic substitution at carbon; elimination and addition reactions. *Prerequisites:* 15.320 and 15.420.

15.521 Advanced Organic Chemistry II (3)

Synthetic and mechanistic aspects of the chemistry of carbonyl compounds; acylations, alkylations, and other condensations; oxidation and reduction reactions. Application of orbital symmetry correlations to organic reactions. *Prerequisite:* 15.520.

15.522 Qualitative Organic Analysis (3)

Identification of organic compounds including classical procedures and modern techniques such as infrared analysis and gas chromatography. Separation and identification of organic mixtures. One hour of lecture, 6 hours of laboratory. *Prerequisite:* 15.320.

15.546 Thermodynamics and Statistical Mechanics (3)

Laws, thermodynamic properties and potentials, phase changes, ideal and real solutions, chemical reactions, probability, distribution functions, phase space, Boltzmann equation, fluctuations, grand canonical ensemble, quantum statistics. *Prerequisites:* 15.420 OR 51.572. (Same as 51.560 in physics department)

15.550 Advanced Inorganic Chemistry (3)

Electronic structure of atoms. Ionic substances. Chemical bonding. Bond energies. Electronegativity. Covalent radii. Bond and molecular polarity. Molecular symmetry. Coordination compounds. Chemistry of the nontransition elements. The literature of inorganic chemistry. *Prerequisite:* 15.410.

15.551 Topics in Inorganic Chemistry (3)

Bonding in metals. Magnetochemistry. Dipole moments. Transition metal chemistry including ligand field theory. Jahn Teller effect. Mechanisms of inorganic reactions including the trans effect. Inorganic materials such as boron hydrides, inclusion compounds, inorganic polymers. *Prerequisite:* 15.550.

15.560 Biochemistry I (3)

Structure and function of amino acids, proteins, lipids, carbohydrates, and nucleic acids. Enzyme kinetics and bioenergetics. Glycolysis, citric acid cycle, and mitochondrial electron transport and oxidative phosphorylation. Three hours of lecture. *Prerequisite:* 15.320. Undergraduates who elect this course must take both the lecture and the laboratory for one and one quarter course credits.

15.561 Biochemistry II (3)

Fatty acid oxidation, amino acid degradation, and photosynthesis. Carbohydrate, lipid, amino acid, and mononucleotide biosynthesis. Contractile and motile systems and membrane transport. Molecular genetics and morphogenesis. Three hours of lecture. *Prerequisite:* 15.560. Undergraduates who elect this

course must take both the lecture and the laboratory for one and one quarter course credits.

15.562 Biochemistry I Laboratory (1)

Experiments related to the material taught in 15.560, which should be taken concurrently. Four hours of laboratory.

15.563 Biochemistry II Laboratory (1)

Experiment related to the material taught in 15.561 with which it should be taken concurrently. Four hours of laboratory.

15.575 Special Topics in Chemistry (3)

Selected topics of an intradisciplinary, interdisciplinary, or multi-disciplinary nature. May be repeated for credit if a different topic is covered. *Prerequisite:* permission from Chemistry Department.

15.589 Advanced Topics in Chemistry (3)

Selected topics. Designed for secondary school science teachers as part of an *In-service program*. May be repeated for credit if a different topic is covered. *Prerequisite:* permission of department head.

15.590 Independent Reading Course (1-6)

See page 50.

15.690 Independent Study Project in Chemistry (1-6)

See page 50.

27.600 Advanced Topics in Earth Sciences (3)

Selected topic or topic in earth sciences. May be repeated for credit, if a different topic is covered. For teachers enrolled under the provisions of an *In-service program* sponsored by the National Science Foundation. Others only with permission of Institute Director, Dr. Leo Schubert.

15.600 Advanced Physical Chemistry (3)

Classical mechanics, quantum mechanics, spectra, M.O. theory, statistical quantum thermodynamics, and intermolecular forces. *Prerequisite:* 15.401.

15.601 Advanced Physical Chemistry II (3)

Chemistry of the liquid and solid states, interaction of electromagnetic waves with matter, cooperative phenomena, theory of rate processes, and irreversible thermodynamics. *Prerequisite:* 15.600.

15.608 Special Topics in Physical Chemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisite:* 15.600.

15.610 Advanced Inorganic Analytical Chemistry (3)

Modern analytical methods and separations. *Prerequisite:* 15.460.

15.618 Special Topics in Analytical Chemistry (3)

May be repeated for credit if a different topic covered. *Prerequisite:* 15.610.

15.619 Inorganic Preparations (3)

Theory and practice of inorganic preparations. Synthesis of representative compounds. One hour of lecture. Six hours of laboratory. *Prerequisites:* 15.460 and 15.550.

15.623 Organic Preparations (3)

Preparative methods of organic chemistry. Emphasis on techniques: vacuum distillation, chromatography, extractions. Preparations from original literature. One hour of lecture, six hours of laboratory. *Prerequisite:* 15.520.

15.628 Special Topics in Organic Chemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisite:* 15.521.

15.632 High Polymer Chemistry (3)

Macromolecules, characterization, molecular weight methods, distribution of molecular weight, solutions, viscosity, kinetics and mechanisms of polymerization, addition and polycondensation polymers, chain reactions, network formation and gels. Free radicals and ionic polymerization. *Prerequisites:* 15.320 and 15.420.

15.640 Colloid and Surface Chemistry (3)

Application of physicochemical principles of colloidal systems. Solid and liquid surfaces, sorption, large molecules in solution, structure of natural and synthetic colloids. *Prerequisite:* 15.401.

15.642 Chemical Kinetics (3)

Order and molecularity of reactions. Activated complex; theory for elementary reactions. Reactions in solutions and on surfaces. Complex reaction mechanisms. Non-isothermal kinetics. *Prerequisite:* 15.400.

15.643 Quantum Chemistry I (3)

The eigenvalue problem. Operators and matrices. Introduction to group theory. Elementary wave mechanics. Atomic spectra. Spin and orbital angular momentum coupling techniques. Molecular orbital theory. *Prerequisite:* 15.600.

15.644 Quantum Chemistry II (3)

Theory of electronic, vibrational and spin resonance spectra of aromatic, organometallic, and diatomic molecules. Quantum mechanical calculations using LCAO-MO-SCF techniques. *Prerequisite:* 15.643.

15.658 Special Topics in Inorganic Chemistry (3)

May be repeated for credit if a different topic covered. *Prerequisite:* 15.551.

15.668 Special Topics in Biochemistry (3)

May be repeated for credit if a different topic is covered. *Prerequisite:* 15.561.

15.670 Electrochemistry I (3)

Faraday's law: conductivity: ionization: transport: ion mobility:

activity coefficients: Debye-Huckel theory: electromotive force: galvanic cells. *Prerequisite:* 15.420.

15.671 Electrochemistry II (3)

Oxidation-reduction reactions: double layer and electrokinetic phenomena; electrode processes; corrosion; electroplating; batteries; fuel cells; biochemical processes. *Prerequisite:* 15.420, 15.670.

15.700 Seminar in Chemistry (1)

Selected topics. Preparation and presentation of a paper of professional quality. *Prerequisite:* permission of department.

15.797 Master's Thesis Seminar (3-6)

15.799 Doctoral Dissertation Seminar (12-20)

Communication

17.100 Introduction to Mass Communication (Course)

Historical, social, legal and economic aspects of mass media; current practices and responsibilities. Sections devoted to special projects. Required of all department majors.

17.101 Writing for Mass Communication (Course)

Basic written techniques of mass communication. Intensive practice in forms of writing for mass media. Three-hour weekly laboratory arranged. Required of all department majors. *Prerequisite:* 17.100.

17.201 Introduction to Human Communication (Course)

Current human communication theory from disciplinary points of view; how communication affects individuals in their personal and social lives. *Prerequisite:* permission of instructor.

.300 level courses are open to juniors and seniors only.

17.320 Reporting I (Course)

Fundamentals of news gathering, news writing and news judgment for all the media; study of news sources, research and interview techniques; supervised writing. *Prerequisite:* 17.101.

17.322 Editorial Policies and Methods I (Course)

Instruction and practice in editing for media. Copy editing and editorial judgment. Use of wire copy. *Prerequisite:* 17.320.

17.325 Feature Article Writing (Course)

Study of various types of feature articles for newspapers, syndicates, magazines, and specialized publications; practice in research, interviewing, writing; revision and the marketing of articles. *Prerequisite:* 17.322.

17.333 Fundamentals of Radio-TV-Film (Course)

Fundamental principles and professional practices in broadcast and film media. Students produce and perform basic experiments and exercises. Laboratory hours arranged. *Prerequisite:* 17.100-17.101

17.342 Magazine Journalism (Course)

Survey of contemporary periodicals, their backgrounds, trends, functions, staff organization, free lance sources, editorial policies and practices. *Prerequisite:* 17.100.

17.343 Photography (Course)

Photographic fundamentals through the intensive use of the camera in assignment situations and laboratory work in film processing and photographic printing of those assignments. Three-hour weekly laboratory arranged. *Prerequisite:* communication and art majors or department permission.

17.381 Development of Broadcasting-Film (Course)

A comprehensive study of trends and historical precedents in the broadcast and film industries of the United States with emphasis on control, financial, governmental, program, and technical factors. *Prerequisite:* permission of the department.

17.382 Writing for Broadcast-Film (Course)

Techniques of script writing for broadcast. Students write and criticize assignments.

17.383 Radio Production and Programming (Course)

Radio programs and their determinants. Students produce, direct and criticize assignments.

17.384 TV Studio Operations (Course)

Principles and practice in the operation of television studio equipment. Laboratory. *Prerequisite:* 17.381.

17.385 Broadcast Journalism I (Course)

Practice in application of news writing and editing to broadcast media; emphasis on editorial responsibility. Use of wire copy and tape recorders in producing news broadcasts. Production of radio documentaries. *Prerequisite:* permission of instructor.

17.390 Independent Reading Course in Communication (Quarter-course to Double Course)

See page 32.

17.490 Independent Study Project in Communication (Quarter-course to Double Course)

See page 32.

Advanced Courses

Undergraduates enrolled in 500 level courses receive one course unit.

Graduate students enrolled in .500 level courses receive three credits. (.500 level courses are open to advanced undergraduates and graduates, .600-.700 level courses are open only to graduate degree students.)

17.558 History of Motion Pictures (3)

Historical development of the motion picture from a laboratory curiosity until the present day. Films, primarily of American origin, viewed, discussed and criticized. *Prerequisite:* permission of the department.

17.581 Broadcasting in Education (3)

Effects which broadcasting and related media have on an American education system whose students exist in media-saturated environment. Also include consideration of roles, organization, and objectives of formal instructional television; and of recently-developed Public Broadcasting System.

17.583 Film Production and Direction (3)

An intensive introduction to all aspects of film production and direction, including writing, cinematography, editing and criticism of motion pictures. *Prerequisite:* 17.100, 17.101, 17.333 and permission of instructor.

17.584 Television Production and Direction (3)

Comprehensive introduction to television program production. Students write, produce, direct, and criticize television assignments. *Prerequisite:* 17.333

17.588 Television Programming (3)

Principles of planning radio and television programs and program schedules. *Prerequisite:* 17.381.

17.589 Seminar in Broadcasting and Film (3)

In depth study of certain areas and problems in broadcasting and film not covered in the regular sequence of courses. Topics will vary from semester to semester. May be repeated for credit when topics vary. *Prerequisite:* permission of department.

17.590 Independent Reading Course in Communication (1-6)

See page 32.

17.591 Internship (1-3)

Supervised study of communication practices at selected organizations. See Department of Communication chairman for placement. *Prerequisite:* six hours in major and recommendation of faculty advisor.

17.601 Experimental Research in Communication (3)

Research problems in experimental methods applied to topics in communication. Systematization of observation, uses of sampling, measurement, and experimental design are considered. *Prerequisite:* permission.

17.690 Independent Study Project in Communication (1-6)

See page 32.

17.710 Seminar in Public Affairs (3)

Intensive study of current issues and making of public policy in Washington; with special emphasis on the role of the media. *Prerequisite:* permission of instructor.

17.720 Seminar in Journalism (3)

The direction of the media and the problems they face. Emphasis on individual research projects. *Prerequisite:* permission of instructor.

17.724 Reporting of Public Affairs (3)

Advanced training in writing news for publication with emphasis on current major issues. One full day a week. Conducted with Seminar in Public Affairs (17.710). *Prerequisite:* permission of instructor.

17.760 Methodology of Communication Research (3)

Introduction to the logic of scientific inquiry and to the strategy and content of research in mass communication. Purpose is to develop both substantive awareness and critical sophistication of mass media research. *Prerequisite:* permission of instructor.

17.797 Master's Thesis Seminar (3-6)

For those students writing a thesis in communication. Do not register without formal approval of thesis topic by department faculty.

International Communication Courses

See School of International Service.

ADVANCED ELECTIVE COURSES

The following courses are not required in the degree programs. They are occasionally offered when resources permit, as electives or for non-degree and off-campus programs through the College of Continuing Education, intersession or summer session. Graduate students receive three credits for .500 level courses.

17.546 Audio-Visual Communication (3)

Problems of communicating through modern audio-visual media. Emphasis upon communication studies and findings in perception, learning, attention and related areas. Students prepare materials and gain experience with audio-visual devices and systems.

17.561 Advanced Writing for Broadcast-Film (3)

Writing and criticism of documentary, dramatic and other types of complex programs for television and film. *Prerequisite:* permission of department.

17.500 Communication History (3)

Development of newspapers, magazines, radio, television and motion pictures, and their influence on contemporary ethics and practices.

17.501 Legal Aspects of Communication (3)

Current legal problems; theory of controls in journalism, visual communication, television and radio. Analysis of libel suits, copyrights, infringement. No previous knowledge of law required. *Prerequisite:* permission of department.

17.503 Mass Media and Society (3)

Role of newspapers, magazines, radio, television and motion pictures, and their impact on society. *Prerequisite:* permission of instructor.

17.507 Freedom of Information (3)

Investigation of access and barriers to information at local, state, national and international levels. Rights and responsibilities of communication media, government agencies, and the public.

17.520 Editorial Policies and Methods II (3)

Advanced training to develop editorial judgment and skills in processing material for publication; study of problems and practices in making assignments, handling departments, and dealing with wire copy; 4-hour laboratory arranged. *Prerequisite:* 17.322.

17.521 Editorial Interpretation (3)

Editorial page policies and practices; supervised writing of various types of editorials on current subjects; analysis of editorial columns and interpretative reviews. *Prerequisite:* permission of instructor.

17.523 Advanced Photography (3)

Advanced work in photography utilizing the photograph as a means of communication through media presentation. Includes extensive assignment situations throughout the Washington, D.C. area. Spring semester includes photographic work in London, England. *Prerequisites:* 17.343 and permission of instructor.

17.524 Reporting II (3)

Advanced training in writing news for publication, with emphasis on specialized areas of coverage; student assignments in selected fields for one day a week. *Prerequisite:* permission of instructor.

17.526 Advanced Feature Article Writing (3)

Principles and methods of writing feature stories for publication. Individual attention to problems. Students submit articles for publication. *Prerequisite:* 17.325.

17.528 Broadcast Journalism II (3)

For advanced students. Production of news broadcasts, including documentary film. Actual broadcast of news programs. Examination of broadcast practices; effects of broadcast journalism on society. *Prerequisite:* 17.381 and permission of instructor.

17.531 International Communication Systems (3)

Communication of news and opinion among nations and under varying types of social, political, and economic systems. Uses of mass media in national development; chief patterns of mass communication throughout the world.

17.532 Publication Layout and Design (3)

Layout, typography, design and printing in the planning and production of newspapers, magazines, books, brochures, and folders. *Prerequisite:* permission of department.

17.536 Government News Reporting (3)

Field work coverage of federal, state and local government, Washington used as laboratory. Intensive work on in-depth reporting, writing and editing. One full day a week. *Prerequisites:* 17.320 and permission of department.

17.585 TV Production and Direction II (3)

Advanced training in longer, more sophisticated television programs. *Prerequisite:* 17.584.

17.782 Broadcasting in the Public Interest (3)

Responsibilities of the broadcaster in terms of "public interest, convenience, and necessity." comparison of U.S. and foreign programming.

Continuing Education

Center for the Administration of Justice

Undergraduate Courses

73.101 Introduction to the Administration of Justice I (Course)

73.102 Introduction to the Administration of Justice II (Course)

Two-semester survey of system for administration of justice in America. First semester gives overview of criminal justice system; police, prosecution, courts, and corrections. Second semester highlights major concerns in contemporary administration of justice: functions of criminal law, assessment of crime, juvenile delinquency and youth crime, organized crime, narcotics and drug abuse, the role of judiciary, civil litigation, institutional and community corrections.

73.150 Social Processes and Deviant Behavior (Course)

Systematic consideration of conformity and deviance within social structures. Nature of interactions between persons and groups which produce deviance. Effects of labeling, an analysis of social problem of community and individual, understanding processes of social control, social task and service system.

73.201 The Administration of Justice and the Community (Course)

Role of administration of justice in life of a community, including impact of community on the system for the administration of justice and the system's response. Community perception of police, courts, and corrections; concepts of community relations and public relations. Community control. Effects of prejudice and discrimination, problems of justice in inner city.

73.210 Administrative Concepts in Law Enforcement and Public Safety I (Course)

Basic principles of administration and management as applied to police function. Emphasis on police organization and management, staff function and police role.

73.211 Administrative Concepts in Law Enforcement and Public Safety II (Course)

Police operations including patrol, investigation, traffic, juvenile, and special operations.

73.220 Criminal Justice and the Constitution (Course)

Constitutional limitations of criminal justice system; its processes; implications of Federal constitutional protection with respect to police investigation, pre-trial, trial, and post-conviction processes, and definition of offenses.

73.221 Substantive Aspects of Criminal Law (Course)

Substantive criminal law emphasizing statutory criminal law against the background of Common Law. Specific offenses against the person, habitation, property, public peace, morality, and the administration of governmental functions. General principles of criminal law including extent to which law attributes criminality to acts or omissions; criminal intent and *mens rea*: attempts, conspiracy, infancy, insanity, and drunkenness. Special defenses, public authority, prevention of crime, self-defense and defense of others, entrapment, mistake and ignorance.

73.230 Contemporary Corrections in the United States (Course)

Survey of current correctional thought and practices in the United States. Evolution of modern correctional practices in the United States. Overview of correctional treatment in different types of institutions and in the community.

73.251 Alcoholism and Society (Course)

Analysis of the alcoholic in terms of social processes which produce him. Society's cultural values, social pressures, response to the alcoholic by the spouse, the family, the legal systems, and effects of such reactions examined. Cross-cultural data used.

73.253 Juvenile Delinquency and Youth Crime (Course)

Development of individual through childhood and adolescence as it relates to delinquency and crime; special characteristics of juvenile and youthful criminality; current principles, policies, and practices for its prevention and control. Factors producing delinquency. Juvenile detention, and juvenile court, training schools, treatment of the offender.

73.254 History and Philosophy of Criminology (Course)

Basic course presenting history of criminological thought, including traditional and contemporary schools of thought.

73.265 Introduction to the Logic of Law and Social Science (Course)

Use and appreciation of forms of logical reasoning and science.

tific method as applied in the law and in social science to problems of the administration of justice. Specific problems in area of justice illustrating basic principles of logic and applied logic. Includes essentials of basic logic such as induction, deduction, truth, fallacies, argument, and validity, but extends to the application of logic to decision-making and to the scientific method.

73.310 Traffic Planning and Control (Course)

Urban transportation problems, with emphasis on problems of safe and efficient movement of vehicular traffic. Application of systems concepts to traffic planning. Social, economic and political implications of traffic planning. Traffic laws and their administration.

73.311 Introduction to Forensic Science (Course)

Scientific analysis and identification of evidence, identification of documents, special police techniques, interpretation of medical reports, and preparation of reports.

73.312 Drugs and Society (Course)

Examination of processes by which people in various societies come to use "mind-altering substances," including caffeine, alcohol, tobacco, amphetamines, barbiturates, hallucinogens, narcotics. Societal response to drugs and drug use. Assumptions and problems attendant upon identifying drug use as a medical or criminal problem. Social and political meanings of drug abuse and addiction. Rehabilitation, education and other methods of controlling drug use. (Not open to students who have taken Special Problems: Narcotics).

73.313 Organized Crime (Course)

Organized crime in the United States: its impact on society; the need for integrated response by people, government and business. Organized crime as social subculture. Analysis of socio-economic and political aspects of organized crime, emphasis on internal controls and external relations with various political and economic sectors of society. (Not open to students who have taken Special Problems: Organized Crime).

73.315 White Collar and Commercial Crime (Course)

White collar and commercial crime in America: economic and fiscal implications, enforcement problems, fraudulent association, bankruptcy fraud, monopoly and coercive competitive practices, illegal use of securities and credit cards. Focus on problems of theoretical criminology presented by white collar crime. *Prerequisite:* 73.221.

73.320 Criminal Procedure (Course)

Procedural aspects of criminal law; processes of enforcement, investigation, pre-trial procedure, trial procedure and sentencing, post-trial motions, appeals, reviews, and remedies. Focus on police practices emphasizing arrest, search and seizure, bail, preventive detention, interrogation, right to counsel, incompetency and the insanity defense. *Prerequisite:* 73.220.

73.321 Evidence (Course)

Analysis of the rules of evidence applicable in criminal cases, including: presumptions and inference; direct and circumstantial evidence; real evidence; testimonial knowledge and opinions evidence; character evidence; the hearsay rule and its exceptions; documentary evidence; confessions, admissions and the privilege against self-incrimination; illegally obtained evidence; witnesses and former testimony. *Prerequisites:* 73.220 and 73.320.

73.330 Institutional Corrections (Course)

Systematic analysis of correctional processes in juvenile and adult institutions.

73.331 Corrections in the Community (Course)

Probation and parole supervision concepts, pre-release planning, caseload classification techniques, use of probation case-aides, community treatment centers, neighborhood treatment centers. Auxiliary services such as employment, mental health and vocational counselling.

73.340 Judicial Administration—Criminal (Course)

Management of criminal process to assure all constitutional rights. Administrative relationships of courts with agencies and individuals involved in criminal justice process: defendants; police and criminal investigation agencies; prosecutors and defense counsel; bail agencies; probation officers; correctional agencies. Grand jury procedures. Petit jury procedures. Protection of integrity of judicial process.

73.341 Judicial Administration—Civil (Course)

Problems peculiar to civil litigation: personal injury; probate, small claims, landlord and tenant. Protracted litigation. Devices for narrowing issues and expediting litigation. Alternatives to judicial process for dispute resolution. Judicial management problems: record keeping, calendar management, jury service. Administrative relationships of court to other agencies and to public.

73.351 Individuals, Institutions and Justice in America (Course)

Examination of suitability of our system of justice for dealing with institutions by comparing the present status of institutions and individuals in the system of justice. Criteria for assessing abuses and improvements suggested by the public interest, and legal, political, and research action groups.

73.352 Psychiatry and the Law (Course)

Survey of basic psychiatric principles including contemporary views of causes, manifestations, courses and treatments of psychiatric and behavioral disorders; trends in use of psychiatric resources in dealing with deviant behavior within and without the criminal justice system. Areas examined include incompetence as a bar to trial, insanity as a defense, civil commitment, drug addiction, alcoholism, psychiatry in processing and treatment of juvenile offenders and rehabilitative efforts of corrections system.

73.390 Independent Reading in the Administration of Justice (Quarter-course to Double Course)

Supervised reading in subject matter chosen by instructor and student. See p. 32.

73.396 Selected Topics in the Administration of Justice (Course)

Selected topics in various aspects of administration of justice. Each offering is identified by a sub-title. (See current *Schedule of Classes* for specific offerings.) Examples: The Society of the Streets; Poverty and the Administration of Justice; Corruption; Conspiracy; Fundamental Concepts of Social Thought.

73.402 Administrative Justice (Course)

Enforcement of private and public rights and duties by agencies in non-judicial sector of government and by private agencies: social security agencies, welfare agencies, mediation and arbitration groups, housing agencies, rate-fixing authorities, utility commissions. Equality of treatment and due process problems in such agencies. Study of nonjudicial techniques and alternatives in dispute-resolution.

73.411 Problems in Forensic Science (Course)

Detailed examination of specific problem areas involving case studies of investigative techniques, practices and procedures with emphasis on scientific application thereto.

73.430 Administration of Correctional Institutions (Course)

Analysis of basic organization and objectives of correctional agency. Specific principles covering the areas of staff development; relationships of treatment, custodial and support staffs; institutional design; and management.

73.431 The Prison Community (Course)

Social organization in correctional institutions. Inquiry into nature, organization, and aims of the penal system and its effect on groups with which it deals. Interaction between groups within institutions.

73.440 Data Processing in Judicial Administration (Course)

Introduction to concepts of data organization and processing; their application to judicial administration; and survey of capabilities and limitations of computer technology in judicial administration and court management including large volume transactions, jury management, docketing, calendar management, assignment and legal research.

73.450 Prevention of Crime and Delinquency (Course)

Concept of prevention, programs of prediction, sources of data on high delinquency and criminality areas, community action projects as preventive services.

73.453 Civil Disorder (Course)

Close study of the Report of the National Advisory Commission on Civil Disorders. Historical review of civil disorders in the United States; issues involved, actions taken in response to disorder, ultimate resolutions of issues. Special implications of contemporary disorders for system for administration of justice in the United States.

73.454 Violence in America (Course)

Analysis of violence in America with emphasis on various ideologies and events that bring about or slacken violence, such as social movements, depressions, war, and political repression.

73.455 Etiology of Crime (Course)

Analysis of contemporary theories of the economic, political, social and psychological factors contributing to deviance, including poverty, cultural deprivation and conflict, alcoholism and drug addiction, sexual deviation, social and political injustice, gambling and political corruption.

73.456 Crimes Without Victims (One Quarter-course to Course)

Selected topics pertaining to crimes without victims. (See current *Schedule of Classes* for specific offerings.) Examples: Gambling; Sexual Deviation; Prostitution.

73.458 The Juvenile and the Law (Course)

Special legal status of the juvenile. Protective services. Incompetence to enter contracts. Compulsory education. Child labor laws. *In loco parentis* actions by state and private institutions. The juvenile and family court movement, with emphasis on the non-criminal aspects of administration of juvenile justice: guardianship, dependency, neglect, child support, paternity, adoption.

73.463 The Free Press and the Administration of Justice (Course)

Examination of constitutional guarantee of freedom of press as it pertains to special problems in administration of justice. Free press and law enforcement, fair trial, correctional processes. Problems of administrative secrecy, national security, right to privacy.

73.465 The American Character and Social Justice (Course)

Inquiry into influence of America's values upon its system of justice with view to assessing its capacity to meet contemporary demands for social justice under the present system. Analysis of contemporary conflict between law and the social order.

73.490 Independent Study Project in the Administration of Justice (One Quarter-course to Double Course)

Research on a topic agreed upon by the instructor and the student.

73.491 Internship (One Quarter-course to Double Course)

Provide students with actual experience in administration of justice through assignment to enforcement, judicial, or correctional agencies under joint supervision of agency officials and university instructors.

Advanced Courses

73.501 The Concept of Justice (3)

Major philosophical contributions to definition of justice. Attempts are made to analyze relationship of ideal of justice to concrete situations in which issue of justice (civil, criminal, or political) arises.

73.502 The Concept of Law (3)

Analysis of major philosophical approaches to problem of meaning, function, and necessity of law in society. Concept of law in society. Concept of law is examined in its relationship to values, custom, power, and social change, as well as to social theory.

73.503 Concepts of Social Control (3)

Empirical and philosophical evaluation of theories of control of

deviance in society. Justification of society's right to punish its members, problem of punishment vs. reform, as well as theories of rehabilitation, are among issues examined.

73.508 Seminar in Management of Criminal Justice Agencies (1-3)

Selected topics in management of criminal justice agencies. (See current *Schedule of Classes* for specific offerings.) Examples: Executive Development; Training Programs in Criminal Justice Administration; Professionalization; The Role of the Supervisor and Middle Manager; Utilization of the offender as Agency Manpower.

73.510 The Police and the Political System (3)

Analysis of police function as an instrument of public policy in the United States. Relationship of police to public and private agencies. Constitutional and pragmatic limitations on law enforcement; problems of federalism; policy discretion and selective enforcement, minimum standards, community control, political feasibility. Relationship of the police function to social and economic policy. Due process as a requirement for ordered liberty.

73.511 Innovation in Law Enforcement: Practice and Theory (3)

Systematic review of theories underlying attempts at innovation in law enforcement in highly urbanized and metropolitan communities, with special attention to technologically based programs, deployment of specialists, training programs, and utilization of advances in the social and applied sciences.

73.532 Innovation in Corrections: Practice and Theory (3)

Persistent trends in contemporary corrections; pressures for change, centers of change; case studies of innovation.

73.540 Survey in Judicial Administration (3)

Survey of judicial systems with particular stress on urban court problems. Focus with national perspective upon (1) descriptive analysis of judicial systems and their legal, social and political environments, (2) analysis and discussion of social, legal and political issues related to judicial systems, (3) review of basic trends in this sector of government. Judicial officers are invited to participate in discussions.

73.550 Problems in the Exercise of Institutional Authority (3)

Designed to develop participant's insight into problems of authority relationships at work in institutions. Emphasis given to the inter-relationships of objectives, structures, inter and intra-group dynamics and their effects upon personal and organizational growth and development. Focus of learning is upon the problems encountered in the exercise of authority, based on competence, power, or both, and the individual's and institution's responsibility.

73.552 Political Crime (3)

Conceptual, sociological, and historical study of crimes in the political realm, such as revolution, assassination, espionage, as well as acts of civil disobedience and protest. An attempt is made to understand significance and sources of contemporary political crime, and response to it.

73.554 Theories in Criminology (3)

Historical and analytical review of theories in criminology and their relationship to contemporary ideas.

73.557 Victimology (3)

Intentional and unintentional behavior of victims of offenses that trigger their own victimization and other relationships to criminal acts are explored. Historical review of victimology as a special area of study in criminology, the current status of academic studies, and United States and foreign legislative and non-judicial programs concerned with the victims of crimes also receive consideration.

73.580 Seminar in the Administration of Justice (3)

Consideration of major problems encountered in the Administration of Justice (See current *Schedule of Classes* for specific offerings.) Examples: Protest in Contemporary Urban Society; Theories of Prejudice and Discrimination; Social Justice in a Planned Society.

73.590 Independent Reading in the Administration of Justice (1-6)

Reading in subject matter chosen by instructor and student.

73.600 Graduate Survey in the Administration of Justice (3)

Major problems involved in administration of justice in the United States. Emphasis on relationships between major components of the system for the administration of justice: police, courts, and corrections.

73.602 Comprehensive Law Enforcement Planning (3)

Application of planning concepts to development of comprehensive law enforcement plans under the Omnibus Crime Control and Safe Streets Act of 1968. Integration of plans of police, judicial, and correctional agencies into comprehensive crime reduction plan. Identification and definition of objectives. Identification and comparison of alternative courses of action. Resource analysis. Cost-benefit analysis. Identification and quantification of outputs. Criteria for program evaluation. Use of models.

73.603 Community Control of Law Enforcement (3)

Research seminar to develop information on various means being used in the United States to assert and maintain community control over law enforcement agencies, particularly major urban police departments. Police review boards, civilian advisory councils, police-community relations programs. Police reaction to civilian review. Related problems of community control of other bodies of local government, such as school boards, street and park commissions, zoning boards, planning commissions. Public review of judicial performance.

73.608 The Institutionalization of Juvenile Justice Services (3)

Exploration of social organization of juvenile justice programs from an interactionist perspective. Historical review of purposes and practices of programs, such as in law enforcement and juvenile courts, and ways in which they can contribute to increase in crime and delinquency as opposed to their reduction. Organizational goals, theory of the office, informal organizations within organization, and personal belief systems of organizational members are examined as they affect the delivery of services and sacrifice of clients in process.

73.615 Comparative Police Systems (3)

Critical comparative study of different police systems in the United States with those of selected industrialized foreign countries; includes administration, organization, objectives, and principal functions. Analysis of types and levels of controls over police function and relationships of police to the people. Public and police perception of police role within various police systems.

73.616 Intergovernmental Relations in Law Enforcement (3)

Constitutional bases for distinction between federal, state, and local law enforcement functions. Cooperation and conflict in subject-matter areas of shared enforcement responsibility. Comparative organization of state and federal enforcement agencies. Federal support activities, including enforcement, technical, and information services. Federal program assistance under Omnibus Crime Control and Safe Streets Act of 1968.

73.621 The Constitution and Police Administration (3)

Constitutional standards and police practices. Contrast between "due Process" and "crime control" models of criminal justice system. Analysis of Supreme Court decisions on arrest, search and seizure, wiretapping and eavesdropping, entrapment, interrogation and confessions, lineups.

73.662 The Constitution and Criminal Procedure (3)

Constitutional standards and operation of the criminal justice system, excluding police practices. Bail, decision to prosecute, scope of prosecution, grand jury proceedings, preliminary hearings, right to counsel, right to speedy trial, plea bargaining, discovery and disclosure, jury trial, trial by newspaper, double jeopardy, post-trial proceedings.

73.630 The Law of Corrections (3)

Process of law from conviction to release from restraint in its relation to correctional principles and practices. Included are the following: function of the courts, probation, corrections, parole; civil rights of convicted and restoration of those lost, and procedures relating to commitment, fines and writs.

73.632 Correctional Decision-Making (3)

Decision-making as a problem-solving process by managers and workers in correctional setting are described and analyzed, with particular attention to reciprocal relationship between the decision-maker and his organization. Attributes of decision-maker and offender, as well as techniques of organizational adaptation, and environmental variables which may influence the decision-making process are explored.

73.635 Comparative Correctional Systems (3)

Current approaches in control and treatment of juvenile and adult offenders in the United States and other countries.

73.636 Administrative Management in Corrections (3)

Identification and analysis of problems and issues confronting the manager in the correctional setting. Styles of management, decision-making, and problem solving are explored. Laboratory method of learning utilized; therefore, enrollment is limited.

73.637 Interviewing and Counseling in Criminal Justice (3)

Purpose and principles of effective interviewing. Analysis of individual problems in social functioning and the process of problem solving with criminal justice clients. Emphasis placed on learning to help unmotivated involuntary clients.

73.638 Group Counseling in Corrections (3)

Analysis of major theoretical models for understanding group behavior in correctional settings.

73.639 Practicum: Seminar in Group Relations (3)

Advanced course designed to provide practical experiences for criminal justice students and to learn about their own and others' behavior in group situations.

73.646 Understanding Organizational Behavior (3)

Concepts and tools derived from disciplines of Cultural Anthropology, Social Psychology, Sociology and Psychoanalysis are utilized to enhance student's understanding of behavior at work, both intra- and inter-organizationally, e.g., in business, church, government, hospitals, industry, prisons, schools, military, labor unions, etc.

73.652 Sociology of Law (3)

Consideration of how social values and preferences are embodied in law, both substantive and procedural. Law as diagnostic tool to uncover structural preconditions which are generally tacit or less readily observable. Comparative data and cross-cultural information will be used.

73.660 Civil Rights Enforcement (3)

Critical evaluation of the adequacy of mechanisms which have been developed for assurance of civil rights in contemporary America. Enforcement problems pertaining to the administration of justice, voting, equal employment, housing, public facilities, public accommodations, and educational opportunity.

73.665 Problems in Legal and Social Scientific Methodology (3)

Critical comparison of legal and social scientific methodologies with emphasis on their future as complementary procedures for understanding and articulating social justice. Object of the course will be to suggest improved bases for legal and social science approaches to problems of justice.

73.680 Introduction to Social Research (3)

Introduction to social research methods as applied to administration of justice. Emphasis is on basic assumptions underlying social science research methods and role of social research in analysis, interpretation, and clarification of problems of the justice system. Also deals with design and execution of research projects, including analysis of relationship between researcher and those he studies. Introduction to scientific method in development of social theory and solution to social problems.

73.681 The Role of Research in Criminal Justice Administration (3)

Basic aims, processes, and limitations of research in criminal justice agencies are explored in order to acquaint those with

managerial and supervisory responsibilities with appropriate place and function of agency-based research. Techniques for development and supervision of in-house research and control over outside researchers who come into the organization are examined in terms of organizational maintenance and philosophy, ethics, and appropriate utilization and control over the dissemination of research findings.

73.690 Independent Study Project in the Administration of Justice (1-6)

Research on topic agreed upon by the instructor and the student.

73.691 Internship (1-6)

Provides students with actual experience in administration of justice through assignment to enforcement, judicial, or correctional agencies under joint supervision of agency officials and University instructors.

73.775 Seminar in the Administration of Justice (3-6)

Consideration of major problems encountered in Administration of Justice (See current *Schedule of Classes* for specific offerings.) Examples: Problems in Judicial Administration; Alternatives to Use of the Judicial Process; Concepts of Justice. *Prerequisite:* permission.

Center for Educational Technology

59.520 Introduction to Educational Technology I (3)

A survey of the systematic application of scientific knowledge to problems in education including the application of some basic technological processes and the design, development and validation of learning environments. Emphasis on multimedia and computer based educational processes.

59.521 Introduction to Educational Technology (3)

Workshop continuation of 59.520. Application of programmed instruction, systems analysis, communication technology. Problem oriented, self-instructional course with guest speakers and field visits. *Prerequisite:* 59.520.

59.522 Introduction to Programmed Instruction (3)

History, analysis of techniques, design and development. Diagnostic analysis of students. Application of behavioral analysis to the preparation of self-instructional materials.

59.530 Educational and Public Broadcasting I (3)

Role of public broadcasting in education, concentrating on planning facility, types of distribution, systems, financing equipment, staffing, programming, effective utilization in the classroom.

59.530 Educational and Public Broadcasting II (3)

Continuation of Educational and Public Broadcasting I. Occasional guest speakers, tour of educational television facilities, small video tape production project.

59.532 Television in Education (3)

Study of television in education, television systems, programming sources, legal ramifications, sources of funds for special projects, comparative costs, sources of bibliographical data and current research.

59.533 Improving Instructional Television (3)

To identify requirements for effective use of television in instruction—equipment, personnel organization, planning, analyze characteristics of effective instructional television programs; incorporate television to enhance learning situations.

59.534 Seminar in Educational and Public Broadcasting (3)

Seminar designed to assist in preparation of master's and doctoral thesis; oriented to literature research and developing the parameters of the project or study area.

59.540 Introduction to Instructional Media (3)

Survey of basic essential forms of instructional hardware, covering production of software and software carriers; systematic approach to media utilization; emphasis on practical learning-center approach.

59.560 Introduction to Computer Aided Learning (3)

Programmed instruction and computer-assisted instruction. Research on computer assisted learning and instruction; computers, general and special purpose teaching machines; instructor-computer interface; student-computer interface; evaluation and review of case studies.

59.601 Experimental Design in Educational Technology Research (3)

Emphasis on Pre-experimental Designs, true experimental designs, quasi-experimental designs and correlational and ex post facto designs. Ability to apply at least two research designs to at least two educational technology models. Sources of internal and external validity for each design as they relate to educational technology.

59.620 The Design and Analysis of Educational Systems (3)

Production of an educational planning model for a community; system considers qualitative and quantitative aspects of student population, environmental influences, faculty and instructional support characteristics, resources availability and management.

59.690 Independent Study in Educational and Public Broadcasting (1-6)

Individualized student contracts based on pre-stated performance objectives, evaluated by instructor and peers. Projects may be: analysis and synthesis of research findings; development of an instructional model; evaluation of educational technology applications.

59.690 Independent Study in Educational and Public Broadcasting II (1-6)

A continuation of the independent study course.

59.720 Seminar in Educational Technology (3)

Seminar designed to assist students in preparation of master's and/or doctoral thesis and research programs. Student researches the literature and develops the parameters of his project or study area.

59.721 Seminar in Educational Technology in Arts and Humanities Education (3)

Seminar on the design and development of self-instructional learning systems for humanities education, to include behavior analysis and specifications of learning outcomes, sequencing procedures, diagnostic testing, program composition and validation procedures.

Center for Technology and Administration

55.310 Introduction to Data Processing (Course)

Overview of modern data processing. Elements of digital computer system organization, operation and programming: survey of computer applications, systems analysis and information science. *Prerequisite:* 41.100 or equivalent.

55.331 Digital Computer Theory (Course)

The course will cover number systems, codes and Boolean Algebra. Computer circuits and blocks will be examined. The relationship between various computer units will be compared. *Prerequisite:* 55.310, 41.110.

55.333 Computer Programming: FORTRAN (Course)

Basic concepts of computer programming using FORTRAN. *Prerequisites:* 53.310 or equivalent.

55.334 Computer Programming: COBOL (Course)

Basic concepts of computer programming using COBOL (Common Business Oriented Language). *Prerequisite:* 55.310 or equivalent.

55.335 Computer Programming: PL/1 (Course)

Basic concepts of computer programming using the PL/1 programming language. *Prerequisite:* 55.310, or permission.

55.337 Problem Analysis (Course)

This course develops the fundamental ideas involved in the reduction of problems to computable form. Students will learn the elements of BASIC and the use of remote real-time terminals and construct and program simple algorithms for sorting, arithmetic and logical games and management procedures such as PERT. *Prerequisite:* 55.310 (or may be taken concurrently).

55.360 Management and the Computer (Course)

Develops the concept of the computer as a tool of management. Examines the present and future capabilities in effective management utilization and exploitations of computer techniques within a business enterprise. *Prerequisite:* 55.310.

55.390 Independent Reading (Quarter-course to Double course)

55.396 Selected Topics

55.410 Essentials of Data Processing (Course)

A basic course in data processing for those interested in a fundamental look at the functions of data processing in the business and government worlds. Not to be taken in the technology of management program.

55.411 Introduction to Management Mathematics (Course)

The emphasis is on the use of quantitative methods in decision-making. Designed for advanced undergraduates, the objective is to provide the student with working knowledge of mathematical reasoning that is basic to the new and powerful analytical tools of management which, when used properly, can yield valuable insights into interrelationships which are the essence of management decision-making.

55.431 Documentation of Programs and Systems (Course)

Relationship between the management need for clear cut documentation of all aspects of computer systems and the requirements of the computer analysts' and programmers' needs. Various methods of documentation of computer programs and systems will be examined. *Prerequisites:* One programming language and 55.360.

55.432 Introduction to Simulation and Modeling (Course)

Students will design and construct computer models and simulators and use them in applying the scientific method to the study of dynamic systems as in economics, ecology, and transportation. *Prerequisites:* One programming language, 41.111

55.433 FORTRAN Applications (Course)

An advanced course whose purpose is to show how the computer can be used as a management tool using FORTRAN. *Prerequisite:* 55.333 or permission of the instructor.

55.434 COBOL Applications (Course)

An advanced course whose purpose is to show how the computer can be used as a management tool using the COBOL programming language. *Prerequisite:* 55.334 or permission of the instructor.

55.435 PL/1 Applications (Course)

An advanced course whose purpose is to show how the computer can be used as a management tool using the PL/1 programming language. *Prerequisite:* 55.335 or permission of the instructor.

55.436 Computer Operating Systems Management (Course)

What an operating system can do. How to communicate with the operating system to accomplish desired data processing goals. The course will relate to a specific operating system. *Prerequisites:* 55.333 or 55.334 or 55.335 or permission of the instructor.

55.440 Operation Research Concepts (Course)

The scientific method, problem definition, statistical decision theory, model building, implementation and control of solutions, individual projects. *Prerequisites:* 69.300 and 41.111.

55.450 Information Storage and Retrieval (Course)

Introduction to the technology of handling scientific, technical and scholarly literature for purposes of information storage and retrieval. The impact of the computer is stressed as a tool which has revolutionized the field. The application of ADP techniques to the library is considered. The production of computer-aided indexes and catalogs is surveyed. The course is designed for students interested in the application of modern information technology to the many branches of scholarship where it may relieve the tedium of conventional bibliographic searching. *Prerequisites:* 55.310 and 55.333.

55.460 Systems Analysis (Course)

Systems Investigation, the process of recording the present systems. Design of input and output elements of the data system. Justification of the system and the subsequent implementation. *Prerequisites:* 55.310, 55.360 and 55.337 or permission.

55.461 Human Factors in Systems Design (Course)

The impact of systems design and its requirements on human behavior and development in the business organization. An examination of the practical effects of systems automation on personnel management. *Prerequisite:* 55.460.

55.471 Fundamentals of Technology of Management (Course)

Basic analysis of functions of the manager who may become involved in dynamics of change brought about by advancing technology. Study of the interface between administration and technology. *Prerequisite:* 55.310.

55.481 Environmental Modeling (Course)

This course will present systematic investigations of specific natural environments with emphasis on the analysis of technological inputs and will include the production of a "straw" model system for the demonstration of the mechanics of ecosystemic management to provide maximum use of environmental potentials on planet Earth. *Prerequisite:* 41.111, one year natural science, or permission.

55.490 Independent Study Project (Quarter-course to Double Course)

55.498 Honors Tutorial in Technology of Management

Prerequisite: Permission.

55.499 Honors Seminar in Technology of Management

Prerequisite: Permission.

55.511 The Systems Approach (3)

Introduction to the systems analysis approach to the study and

design of managerial and operational organization and process. Fundamental to all other courses in this general sequence, or for anyone who expects to be responsibly concerned with managerial, operational or control organizations and processes of business or government. Includes problem exercises to illustrate the rigor of the discipline and the nature and scope of its applications. *Prerequisites:* 69.202 or 69.400.

55.512 Introduction to Cybernetics (3)

Introduction to the abstractions of Cybernetics. Operational aspects of human intellect are translated into machine simulation and examined for validity of communication and control. The man-machine symbiosis is studied as a means to augment man's capability to solve complex problems. The stability of large and small systems through homeostatic control included. Mathematical explanations are kept at a minimum.

Advanced Courses

55.513 Technology and Administration (3)

Effects of technological and scientific development on the organizational, operations, and staff functions of the public or private administrative establishment. Implications for the manager and managerial unit of the information and cybernetic revolutions, and modern technological instruments and methods for the performance of societal and administrative functions. Reciprocal effects of managerial requirements on technological development. Includes a general appreciation but not an intensive development of the significance of research and development for the general manager or administrator. *Prerequisite:* 55.511.

55.514 Operations Research Approach (3)

Concepts of problem definition, model building; evaluation of operational environment with emphasis on economic goals and constraints; decision making. *Prerequisites:* 41.222; 69.300 or 69.400.

55.530 Real-Time Systems (3) (formerly Automatic Data Processing Systems)

Large scale computer system organization and design. Detailed analysis and design of a large business or government computer system application followed by technical design of appropriate hardware/software and system specification. Queuing, communications, cost-benefit analysis, equipment capabilities and system design problems of real-time environment stressed. Emphasis on thorough development of system application and implementation rather than on hardware engineering or component design. *Prerequisites:* 55.310, 69.400. An ability to handle moderately advanced mathematical and statistical tools is very desirable.

55.531 Computer Design (3)

Fundamentals of Boolean Algebra and logic design, design and functional operation of arithmetic, logic and control units, memory characteristics, analysis and comparison of organization of typical third generation small, medium, and large scale commercial computing systems. A non-engineering approach will be taken. *Prerequisite:* 55.530.

55.540 Operations Research in Management (3)

Overview of general field of Operations Research and its role in the decision making process. Modeling techniques and applications of a variety of prototype problems are covered, including linear programming, inventory and queuing models, replace-

ment and maintenance models, Markov chains, simulation and dynamic programming models. Mathematics employed limited to elementary Algebra and Statistics, stresses the quantitative approach. Not to be taken if OR is a comprehensive field. *Prerequisite:* 69.300 or 69.400.

55.542 Probability and Statistics for Management Decisions (3)

A unified treatment of probability and statistics that will serve to form the statistical background for a wide variety of decision problems. Probability, theoretical distributions, sampling, tests of hypotheses, multivariate regression and correlation, analysis of variance, Chi-square analyses, non-parametric tests. *Prerequisites:* 41.222; 69.300 or 69.400.

55.544 Advanced Management Mathematics (3)

Review of mathematics necessary for advanced work in Operations Research. Sets and relations; mathematical induction series; limits and continuity; differentiation; optimization; integration; differential equations; probability theory. *Prerequisite:* 41.222. Not required where 41.222 and 41.223 (or equivalents) have been satisfactorily completed recently. This course will be required, as a prerequisite for 55.641, of students whose differential and integral calculus were taken more than ten years ago.

55.550 Survey of Information Science and Technology (3)

Introductory survey of scientific and technical communications field with emphasis upon modern mechanized methods. Information theory, documentation, reprography, computer-aided photocomposition among the topics covered. Symbiotic relationship between the publishing field and information storage and retrieval systems stressed as underlying philosophy of the course. A prerequisite for all other courses in the Scientific and Technical Information Systems area. *Prerequisite:* 55.310 or equivalent experience.

55.560 Systems Design for Business Operations (3)

Opportunity to develop and defend specific management sciences techniques against both hypothetical and actual business operations and problem areas. Use of case studies, group discussions and projects, against current business operations, guidance in developing firm understanding of relationships and dependence upon interdisciplinary approaches to problem recognition, definition, development of alternatives and ultimate selection of optimum solution based on cost/effectiveness. *Prerequisite:* 55.530.

55.561 Management of Automatic Data Processing Systems (3)

Examination of unique problems, functions and requirements of data processing management. Within role of this management, planning, installation, operation and organization of computer facility examined. Executive interaction stressed, specifically in decision-making, planning and evaluation functions. The course content is developed through lectures and reports. *Prerequisite:* 55.530.

55.562 Management of Institutional Records Systems: Creation (3)

Nature and functions of records and record systems, in relation to totality of organization and administrative process. Reviews kinds and respective functions of institutional paper and paperwork, but gives primary emphasis to development and installa-

tion of a records management program. Physical facilities systems and equipment for storage of records and informational paper; reproduction process and equipment; mail; correspondence; and telecommunication. *Prerequisite:* Administrative experience, or undergraduate or graduate course work in government, public administration, business administration or CTA programs.

55.570 Management of Research and Engineering Organizations and Laboratories (3)

Basic course on management of research and engineering organization. Discussion of the full spectrum of elements in such an organization, utilization of resources, comparison of government and business, establishment of procedures and methodologies for effective and efficient operations. *Prerequisites:* Permission.

55.571 Technological Forecasting (3)

Review of principal methodologies of technological forecasting involving establishment of long range goals definable in technical terms, and consequent preferred means of achieving them; usefulness and limitations from the viewpoint of practitioner as well as manager. Relationship to planning, technological transfer and assessment. Case studies. *Prerequisites:* 55.411, 55.570, or permission.

55.580 Environmental Systems Analysis—A Survey Course (3)

Multidisciplinary, integrative, ecological analysis of three environmental systems of earth; air, land, and water. Curriculum includes a-biotic and biotic factors of the environment as each flows from its particular systemic niche. (Laboratory).

55.581 Technological Systems Management of the Environment (3)

Technology of management of air, water and land systemic complexes with reference to the present level of monitoring devices and programs on the computerization-automation in environmental monitoring. (Laboratory).

55.582 Administrative Systems of the Environment (3)

Governmental management of air, water and land systemic complexes with reference to control laws and regulatory statutes at federal, state and local levels.

55.590 Pollution Problems Reading Course (Dial-Access) (1-6)

Offers one course credit to students and can be taken at the student's convenience. Course, however, must be taken in language lab. Films and tapes are provided by the instructor. Research paper is required.

55.590 Malnutrition—Mental Retardation—Public Administration (Dial-Access) (1-6)

Offers one course credit to students and may be taken at student's convenience. It must be taken in language lab. Films and tapes are provided by the instructor. Research paper is required.

55.590 Housing Problems—Urban Rural Migrant in Relation to Production—Pollution—Population—Crisis (Dial-Access) (1-6)

Offers one course credit to students and may be taken at the student's convenience. Course, however, must be taken in language lab. Films and tapes are provided by instructor. Research paper is required.

55.590 Independent Reading Course (Environmental Systems) (Dial-Access) (1-6)

55.632 Simulation and Modeling (3) (formerly Advanced Computer Applications)

Design, development and programming of mathematical models and simulations. Deterministic, stochastic and heuristic models, measurement and scientific method, data acquisition and field work. Related programming techniques. *Prerequisites:* one programming language, 69.400 and 55.530, or permission.

55.633 Programming Systems and Language (3) (formerly Evaluation of Software)

Examination of basic attributes of major classes of programming languages and systems. Characteristics that describe basic differences between types of languages emphasized. Roles of various operating systems briefly examined; as well as problems of operating systems design, and implementation. *Prerequisites:* 55.333 or 55.334 and 55.530.

55.635 Workshop in Computer Systems (3)

Advanced computer applications with emphasis on special projects. *Prerequisites:* 55.632 and permission.

55.637 Workshop in Operating Systems (3)

Operating system concepts necessary for the management of automatic data processing installation. Include job scheduling, program management, and data files. Utilities, compilers, special purpose languages, telecommunications, and software sources are also discussed. *Prerequisites:* 55.633.

55.641 Methods of Operations Research I (3)

Review of statistical basis for sampling; inventory, replacement and sequencing problems; mathematical programming including linear, non-linear and integer programs; competitive strategies and their methods of solution. *Prerequisites:* 55.514, 55.542 and 55.544 or equivalent (as stated under 55.544).

55.642 Methods of Operations Research II (3)

Role of selected probability distributions in OR; Queuing Theory and Applications; Markov Processes; Dynamic Programming and extensions integrating Markov Processes; selected problems in simulation. *Prerequisite:* 55.641 or permission.

55.645 Workshops in Operations Research (3)

Depending upon current interests of the student body, special

topics will be taken up in depth. They will be selected from such subjects as maintenance, reliability, advanced topics in mathematical programming, and capital investments. Where required, advanced mathematical and statistical techniques will be covered. *Prerequisites:* 55.642.

55.646 Cost-Benefit Analysis (3) (formerly 55.666)

Examination of the techniques used to evaluate non-market oriented goods and services. *Prerequisites:* 55.544 or 41.223.

55.650 Natural Language Data Processing (3) (formerly Computational Linguistics)

Basic knowledge of computational linguistics, useful in any field in which computer is called upon to interpret or to analyze natural language such as indexing and classifying documents, extracting and abstracting, analyzing stylistic variations, machine translation and automating concordances. Non-specialist oriented introduction to field for information scientists, computer programmers, librarians and others interested in learning the scope of computer applications in alleviating some of the more tedious and repetitive tasks of scholarly research. Students of modern linguistics should be particularly concerned with the implications of this powerful tool in their discipline. *Prerequisite:* 55.550 or equivalent experience.

55.651 Technical Information Machine Systems (3)

Application of machine systems with major emphasis on the handling of the scientific and technical literature. Capabilities of mechanized systems emphasized, with adequate consideration given to software developments. File organization and record formatting stressed. User requirements and evaluation techniques form the central core of this course. *Prerequisites:* 55.530, 55.550 or their equivalents in experience.

55.653 Concept of Abstracting and Indexing (3)

The impact of automatic data processing and mechanized methods upon processing and dissemination of information, emphasizes mainly intellectual functions to which this information must be subjected before and after machine intervention. "Arts" of abstracting and indexing. Analyzes technical writing, annotating, indicative and informative abstracting, classification methods including the Universal Decimal Classification and faceted classification, word indexing both in- and out-of-context, vocabulary control and Thesaurus-building, links and roles, citation indexing and relevance/recall ratios. Students must abstract and index limited number of documents in their own fields of interest and specialization. *Prerequisite:* 55.550 or equivalent experience.

55.654 Workshops in Technical Information Handling (3)

From time-to-time, as warranted by current interest, faculty availability and composition of the student body, special topics will be covered. Examples are chemical rotation systems, specialized information needs of various disciplines and professions (e.g. law, medicine, business administration, etc.), and integrated information networks. Students may repeat this course several times, provided that identical topics are not duplicated. *Prerequisite:* 55.550 or permission of the instructor.

55.655 Automated Library Systems (3)

Introduction to the application of Systems Analysis and computers to the modern library. Library functions are analyzed systematically with a view toward the automation and mechanization of such clerical functions as book and journal acquisitions,

preparation of accession lists, charging-out routines, etc. In addition, the use of the computer in the production of catalog cards, book catalogs, bibliographies and indexes is emphasized. Techniques for the evaluation of library effectiveness discussed with the ultimate aim of providing maximum user satisfaction. Particularly directed at practicing librarians who wish to apply modern systems of technology to their own libraries. *Prerequisite:* 55.550 or permission of the instructor.

55.656 Publication Techniques (3)

Careful analysis of primary journal publication with emphasis on economic factors.

Computer-aided photocomposition technology, emphasis on machines such as the Photon, Videocomp and Linotron, Mechanized processing of primary publications, abstracts and indexes as part of an integrated system in which scientific and technical publications are part-and-parcel of information storage and retrieval systems, i.e. the Medical Literature Analysis and Retrieval System (MEDLARS) of the National Library of Medicine. *Prerequisite:* 55.550 or permission.

55.660 Management Information and Reporting Systems (3)

Provides an understanding of the complexity of an integrated information system and its components. Covers system design, development, application, utilization and evaluation. Various philosophies concerning the manner and degree of depth and breadth of the integrated management information system approach reviewed. Advanced management techniques (e.g., real-time systems, time sharing, file management systems, models, simulations, operations research and cybernetics) are discussed in terms of their applicability to Management Information and Reporting Systems. *Prerequisites:* 55.530 and 55.560.

55.665 Workshop in Management Information Systems (3)

Advanced Management Information Systems applications with emphasis of special projects. *Prerequisite:* 55.560, 55.660, and permission.

55.670 The Politics and Economics of Research and Development (3)

Magnitude, characteristics, and politico-economic significance of the R&D economy of the U.S. and, comparatively, of other countries. Structure and nature of the U.S. research industry. Government-business defense economy. Governmental non-military research. Business and industrial research. Trends and forecasts. National resources allocation, and other political and economic problems. *Prerequisite:* permission.

55.671 R & D in the Total Organization (3)

Criteria for top management; decisions; (a) capabilities of scientific, technological and social science research; (b) utilization for needs of the specific organization; (c) definition of R&D requirements, in-house and/or external implementation, determination of budget; (d) evaluation of success and contribution to organizational objectives; (e) conversion of R&D results into governmental or business applications, products, or processes. *Prerequisite:* 55.570.

55.672 Scientific and Engineering Manpower (3)

Study in depth of scientific and engineering manpower stressing role of individual in the R&D environment and his interface with the total resources of which he is a part. Impact of the innovative forces at work. For advanced graduate student. *Prerequisites:* 55.570 and at least one other of the above R&D courses.

55.673 Planning and Control of Research and Development Operations (3)

Study in depth of role of today's research and development manager. Review of operational policies and goals. Forecasting, planning and programming techniques, analysis methodology. Exercise of "value judgments." Intended for the advanced graduate student. *Prerequisites:* 55.570 and at least one other of the above R&D courses. NOTE: if 55.770 is not offered in any given semester, 55.673 will be accepted as the SGPA Master's research requirement (in lieu of thesis).

55.683 Pollution Abatement Potentials (3)

In-depth study of the three major contributors to environmental systematic pollution; agriculture, industry, and municipal wastes with emphasis on re-routes and re-cycling. (Laboratory).

55.684 Environmental Management in Relation to Conservation Practices (3)

Preservation of natural ecosystemic balance in limnological, marine and terrestrial environments through public administration at federal, state and local levels; through public education and through monitoring systems such as tagging of biotic species; radiation devices; weather regulation; etc.

55.685 Workshop in Environmental Systems Management (3)

From time-to-time, as warranted by current interest, faculty availability, and composition of the student body. These workshops focus on individual environmental problems and may involve field investigations.

55.690 Independent Study Project (1-6)

55.696 Selected Topics (3)

55.699 Master's Thesis Seminar (3-6)

55.730 Seminar in Computer Systems (3)

Prerequisite: permission.

55.740 Seminar in Operations Research (3)

Prerequisite: permission.

55.750 Seminar in Scientific and Technical Information Systems (3)

Prerequisite: permission.

55.760 Seminars in Management Information Systems (3)

Prerequisite: permission.

55.770 Seminar in Research and Development Management (Master's) (3)

For course content, see 55.673. Offered for students whose program requires a seminar in lieu of a thesis for a master's degree. *Prerequisites:* 55.570 and at least one other of the above R&D courses, and permission.

55.775 Seminar in Research and Development Management (3) (Doctoral)

Critical review of literature pertinent to modern R&D management, intended to develop within the R&D executive a clear grasp of the applicability of current knowledge of problem solving. A study in depth of today's research and development manager. Intended for the very advanced graduate student. *Prerequisite:* permission.

55.780 Seminar in Environmental Systems Management (3)

Prerequisite: permission.

55.799 Doctoral Dissertation Seminars (3-12)

Church Management

Students of Wesley Theological Seminary and of Howard University School of Religion may take Church Management courses for which they are qualified and which are appropriate to their degree programs, without additional cost, subject to approval of the student's faculty advisor and Mr. Clyde W. Humphrey. For further information, call 686-2500.

72.539 Church Program Development (3)

Basic concepts of management and their application in designing action programs to accomplish congregational purposes, objectives, goals. Fact-finding, problem identification forecasting, policy-making, and planning.

72.546 Managing Church Financial Resources (3)

Systematic approaches to obtaining, protecting, and using monetary resources for churches and related organizations. Stewardship applied through budgeting, fund raising, purchasing, and accounting.

72.547 Church Family Financial Planning (3)

Assistance to religious leaders in planning their own family financial affairs and in helping them qualify to teach groups, counsel individuals with problems of family finance.

72.548 Church Property Management (3)

Acquiring, using, maintaining, protecting real estate, equipment for religious purposes. Legal considerations; tax obligations. For pastors, property managers, and others responsible for administering physical facilities.

72.549 Church Office Services (3)

Functional approach to office planning and staffing, housing and equipping, communicating and scheduling, recording and reporting. Case problems to develop, and integrate administrative skills.

72.550 Personnel Relations for Religious Organizations (2)

Responsible stewardship of human resources. Determining and describing staff positions; enlisting, assigning, and training staff personnel, both volunteers and employees; developing and maintaining staff morale.

72.551 Church Management: Selected Topics (2)

Observations, field studies, conferences, shared experiences to explore significant subject areas not covered adequately in other courses. Varying themes announced each session. May be repeated if different topics are covered. Topics selected from: accounting methods, basic concepts, effective communications, estate planning, food services, group procedures, information systems, insurance programs, legal environment, program budgeting, public relations, systematic purchasing, and tax problems.

72.552 Church Management Internship I (3)

Correlation of faculty-supervised work experience and seminar sessions, to apply previous studies, develop comprehensive philosophy. Practical research, evaluation, and reports. *Prerequisite:* Six credits in church management or permission.

72.553 Church Management Internship II (3)

Scheduled field-work assignments and seminar sessions, primarily for students preparing for religious career service as professional directors and ministers of management. An applied research project is completed and reported as if for publication. *Prerequisite:* 72.552 or permission.

72.554 Church Program Promotion (2)

Management strategy that churches and related organizations may use effectively in seeking acceptance of and identification with their purposes, objectives, goals, accomplishments, potentialities, and needs.

72.746 Seminar in Religious Organization Management (3)

Individual research on a selected category of related organizations, with varying selections each session. Categories available: religious congregations and judicatories; church-related camps and assembly centers, denominational junior colleges; church-related community service agencies. May be repeated for credit if different category is covered.

For those who cannot participate in the foregoing courses on a full semester basis, the Center for Church Management offers a series of non-credit institutes the subject matter of which is substantially equivalent to that of 72.545, 72.546, 72.547, 72.548, 72.549, and 72.550.

For additional courses related to church management, see catalogs of Wesley Theological Seminary or of Howard University School of Religion.

English Language Institute

74.110 English Workshop I: Intensive Basic English (for Foreign Students) (Double Course)

A course in basic English for students with little or no knowledge of English. The main emphasis of the course is on oral English, and it includes intensive practice of English grammar and pronunciation.

74.120 English Workshop II: Intensive Intermediate English (for Foreign Students) (Double Course)

This course is designed for intermediate students of English. It

emphasizes pronunciation and the more complex structures of English, as well as the development of basic reading and writing skills.

**74.130 English Workshop III:
Intensive High-Intermediate English (for
Foreign Students) (Course)**

A semi-intensive course in English for more advanced students; equal emphasis on reading, writing, speaking, and listening. *Placement by examination.* Offered fall, spring.

**74.140 English Workshop IV:
Semi-intensive Advanced
English (for Foreign
Students) (Course)**

A semi-intensive course in English for advanced students: emphasis on mastery of the pronunciation, grammatical structures, and writing features of English; advanced reading selections for increased comprehension and speed.

**74.160 Evening English Workshop
(for Foreign Students)
(Course)**

Semi-intensive, intermediate level courses with equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills.

**74.170 Saturday English Workshop
(for Foreign Students)
(Half-course)**

Intermediate-level course in English. Equal emphasis on speaking, listening, and reading skills; some attention to development of writing skills. Language laboratory practice included.

**74.190 English Workshop
Half-Course**

A review course emphasizing the fundamentals of grammar and the improvement of reading and writing skills. Successful completion of this course does not fulfill the University requirement in English. Admission by placement test only.

**74.197 Review of English
Grammar I (Course)**

Review for students admitted to the University but needing additional work in English before taking a full academic load.

**74.198 Review of English
Grammar II (Course)**

Continuation of 74.097 with advanced work in grammar.

**74.200 Composition and Reading I
(for Foreign Students)
(Course)**

Foreign students whose competence in English makes them eligible for college-level work are assigned to this section so that attention can be given to their special language problems. The emphasis in this course is on reading and writing.

**74.201 Composition and Reading II
(for Foreign Students)
(Course)**

A continuation of F74.100; emphasis is on library and research techniques.

**74.390 Independent Reading Course
In English (One Quarter
Course to Double
Course)**

Supervised reading in subject matter chosen by the student in consultation with an instructor.

**74.396/.696 Selected Topics
in English For Foreign
Students (Course) (3)**

Consult the Fall and Spring *Schedule of Classes* for specific topics.

**74.490 Independent Study Project
in English (One Quarter
Course to Double
Course)**

Supervised study project in subject matter chosen by the student in consultation with an instructor.

**74.500 Reading and Composition
for Graduate Students I (3)**

Restricted to graduate foreign students. The emphasis is on library and research techniques and methods of technical writing.

**74.501 Reading and Composition
for Graduate Students II (3)**

Continuation of 74.500 with emphasis on writing a research paper.

**74.590 Independent Reading Course
in English (1-6)**

See description for 74.390

**74.596 Selected Topics in
English (3)**

Courses for native speakers of English. Emphasis on practical concerns such as social dialects.

**74.690 Independent Study Project
in English (1-6)**

See description for 74.490

**Institute for Housing
and Urban Development**

**31.401 Property Management I
(Course)**

Management of commercial, residential property. Rental values, neighborhood analysis, tenant selection, leasing, tenant and owner relationships. Final exam may be substituted for regular course exam for Course No. 1 of the Institute of Real Estate Management.

**31.501 Institute on Property
Management II
(formerly 11.582) (3)**

Advanced analysis of multi-unit apartments, office buildings, shopping centers. Legal, tax, financing aspects. Regional analysis and urban redevelopment. Creative management. *Final examination may be substituted for regular course examination for Course No. 2 of The Institute of Real Estate Management on*

payment of \$25 fee. Prerequisite: 31.401 or 11.481 or graduate standing.

31.503 Institutes on Real Estate Appraisal Ia (3)

Official Study Course No. Ia of the American Institute of Real Estate Appraisers. Nature of real estate value; basic principles, methods and techniques. *Satisfactory grade accepted by Appraisal Institute in lieu of required examination No. Ia. Prerequisite:* satisfactory completion of two real estate courses; or at least two years equivalent experience and permission of program director; or graduate standing.

31.504 Institute on Real Estate Appraisal Ib (3)

Official Study Course No. Ib of the American Institute of Real Estate Appraisers. Nature of the real estate value: income approach to value and capitalization. *Satisfactory grade accepted by Appraisal Institute in lieu of required examination No. Ib. Prerequisite:* satisfactory completion of two real estate courses; or at least two years equivalent experience and permission of program director; or graduate standing.

31.505 Institute on Real Estate Appraisal II (3)

Case study Course II of the American Institute of Real Estate Appraisers. Urban properties: Appraising procedures, capitalization techniques, case studies, problems. Credit applicable toward membership in Institute. *Prerequisite:* 31.503 and 31.504 (Appraisal Ia and Ib), or passing AIREA Examinations Ia and Ib.

31.566 Institute on Property Management IV (3)

Advanced analysis of office buildings. Developing, leasing, and management. Feasibility studies. Financing. Leasing techniques. Tenant suite development. Parking. Remodeling. Final examination may be substituted for regular course examination for Course IV of The Institute of Real Estate Management on payment of \$25 fee. *Prerequisite:* 31.401, or graduate standing, or permission.

72.477 Real Estate Transactions (Course) (Formerly 11.576)

Principles, practices of listing, selling, title, transfer. Drawing documents. Contracts, deeds, financing, other instruments. Ownership rights, liens, taxes, assessments, other claims on real property.

72.570 Housing Low and Moderate Income Families (3)

National Housing goals and needs. Federal low and moderate income housing program. Housing development process. Economic, social, legal, technological constraints. Roles of various decision makers.

72.578 Real Estate Law (3)

Legal aspects of real estate transactions for non-lawyers. Acquisition, encumbrance, transfer. Rights, obligations of parties. Survey of law, analysis of cases.

72.591 Internship in Urban and Real Estate Problems (1-3)

By arrangement with Director.

Pride / American University Institute

71.100 Language Skills Institute (Half-course)

Provides students with basic language art skills, such as spelling, grammar, etc. Instruction is individual and intensive.

71.101 Communications I: Literary Criticism and Composition (Course)

Objective is to teach writing skills, particularly expository prose, and the analysis and criticism of fiction; also, to make the student conscious of his own prose style, its diction, sentence structure, organization, and tone.

71.102 Communications II: Man and Society (Course)

Advanced composition analysis of fiction and how to write research paper.

71.103 Philosophy of Communication: The Essay (Course)

Introduction to rudiments of effective essay writing. Assignments range from expository to rhetorical to poetic. Considerable attention is also given to the study of the essays of Montaigne, Thoreau, Joseph Wood Krutch, Richard Wright and others.

71.104 Philosophy of Communication: Critical Reading and Thinking (Course)

Involves conscious awareness of what really happens between an author and his reader in the highly complex process of reading. Students do close analysis of scores of essays and several demanding books.

71.105 Mathematical Skills (Half-course)

Provides necessary fundamentals of math to allow student to deal with simple math functions encountered in pursuing the various related fields.

71.110 Fabric of Social Structure I: Psychology (Course)

Introductory psychology, with cross-cultural emphasis.

71.111 Fabric of Social Structure II: Psychology (Course)

Continuation of 71.110, with social psychology emphasis.

71.112 Fabric of Social Structure I: Economics (Course)

Introductory survey of economics focusing on economic philosophy, generally, and the economic environment of the center city, specifically.

71.113 Fabric of Social Structure II: Economics (Course)

Continuation of 71.112.

71.114 Fabric of Social Structure I: Sociology (Course)

Introductory survey of sociology focusing on the societal institutions that serve or fail to serve the central city.

71.115 Fabric of Social Structure II: Sociology (Course)

Continuation of 71.114.

71.201 Black Cultural Heritage (Course)

Emphasizes historical, literary, musical, artistic, and scientific contributions of Black Americans. Open to limited number of American University students.

71.202 Social Dynamics (Course)

Stress on sociology of black-white community with reference to social movements and institutions, urban problems, law enforcement, and community development.

71.210 Accounting Principles I (Half-course)

Basic techniques of recordkeeping and accounting.

71.211 Salesmanship (Half-course)

Examines techniques of salesmanship, marketing as they relate to inner-city economic development and creation of a relevant and effective sales force. Focus is upon the many facets of sales and salesmanship as they relate to psychosocial development of inner-city experience.

71.212 Accounting Principles II (Half-course)

Continuation of 71.210, Accounting Principles I.

71.213 Accounting Principles III (Half-course)

Continuation of 71.212, Accounting Principles II.

71.220 The Educational Institution (Course)

Awareness of existing structures of education in university, public school, parochial, private, etc., to analyze their implications for society and its inhabitants.

71.221 Law, Repression and the Community (Course)

Purpose is to make the student aware of institution of "Badge" power within community. Police department as institution and operations of police.

71.222 Community Organization (Course)

Techniques and principles of community organization and practical application as it relates to minority community.

71.223 Political Man and Society (Course)

Political process and its relationship to conflict, development, and cross-cultural interaction.

71.224 Development of Effective Oral Communication I (Course)

Gives extensive practice (with use of tape recordings) in the most important forms of oral communication including informative exposition, debate, rhetorical argumentation and symposiums. Special attention given to speech analysis and evaluation

(of fellow students and leading contemporary speakers), voice, diction, and the art of knowing one's audience.

71.225 Development of Effective Oral Communication II (Course)

Continuation of 71.224, Development of Effective Oral Communication I.

71.230 Consumer Education (Course)

Basic knowledge of buying, selling, and consumer principles. Practical application stressed.

71.231 Lay Advocacy (Course)

Designed to meet general legal needs of inner-city residents. Basic purposes: to make the student aware of his basic inalienable rights under the Constitution and to enable him to use the law as a tool and a weapon.

71.232 Principles of Counseling (Course)

Geared towards methods of counseling inner-city males between the ages of 16 and 21. Emphasis on various problems encountered by public school students.

71.233 Techniques of Management (Course)

Examines strategies of management in relation to community organizations.

71.440 Day Care Administration (Course)

An introduction to the establishment and implementation of a successful day care center.

71.441 Child Psychology: Day Care Application (Course)

Introduction to child's development with emphasis on learning, maturation, motivation, and social functions.

71.442 Education in Day Care Schools (Course)

Introduction to early childhood education at a successful day care center.

71.443 Day Care Health Program (Course)

Introduction to health aspects necessary for successful administration and performance of personnel in a day care program.

71.534 Group Theory and Practice (3)

Provides participants with opportunities for personal learning and for increasing awareness of inter-personal group processes as they occur in classrooms, faculty meetings, administrative-faculty-student relations, and university community relations.

71.535 Systems of Organization (3)

Designed to develop participants' insights into problems of organizational working situations. Emphasis placed on community based organizations and universities.

Public Relations

72.525 Propaganda Analysis (3)

Attitudes and public opinion; how they have been influenced in past and present through propaganda techniques. Specific topics to be studied include formation of attitudes, attitude change, the nature of public opinion, public opinion measurement, how the PR practitioner attempts to persuade. Historical uses of propaganda, and propaganda—good, bad or neither?
Prerequisite: 72.540

72.532 Publication Layout and Design (3)

Study of layout, typography, design, and printing in the planning and production of newspapers, magazines, books and folders. *Prerequisite:* permission of CCE.

72.540 Principles of Public Relations (3)

Historical development of public relations; economic and social factors in relations between publics and media in the formation of public opinion. Case studies of current practices. *Prerequisite:* 17.320

72.541 Publicity Writing (3)

Writing for public relations, publicity, and promotional programs; preparation of news releases, articles for magazines and trade journals, broadcasting scripts and promotional booklets. *Prerequisites:* 17.320 and 72.540

72.542 Promotional Campaigns (3)

Case studies of promotional methods of business, government and social organizations; development of promotional campaigns by each student for an institution in Washington, D.C. *Prerequisite:* 72.540

72.543 Public Relations Abroad (3)

Problems of public relations in international affairs; case studies of American business public relation practices in other countries. *Prerequisite:* 72.540

72.544 Public Relations and Government (3)

Analysis of public information programs conducted by governmental agencies to influence various publics and institutions on key government issues. Intensive research and journalistic reporting of actual information programs in Washington, D.C. during the semester. *Prerequisite:* 72.540

72.545 Public Relations in Business (3)

Case studies in business and industrial relationships with various publics, e.g., labor, trade, dealer, customer, stockholder and community. *Prerequisite:* 72.540

72.690 Independent Study Project (In-Service Project) (6)

Prerequisite: permission of CCE.

72.740 Seminar in Public Relations (3)

Formulation of policies for long-range public relations programs. Emphasis on individual research projects. *Prerequisite:* permission of CCE.

Economics

Undergraduate Courses

19.100 Introduction to Economics (Course)

Survey of basic economic issues and policy. Institutional framework. National income, employment, inflation, and growth. Business cycles and national economic policy. Resources and resource allocation, poverty, public finance.

19.110 Selected Topics in Economics (Course)

Application of economic principles to topics in international trade and finance, national economic policy, theory of the firm. Subject matter and prerequisites vary. See semester bulletin.

19.300 Price Theory and Its History (Course)

Theory of relative prices of commodities and productive services under perfect and imperfect competition. The theory of the firm and the theory of consumer demand. In addition, the history of price theory is traced through the writing of Smith, Ricardo, Marshall, Wairas, to date. *Prerequisite:* 19.100

19.301 Income Theory and Its History (Course)

Basic concepts and theory of income, employment and economic growth. In addition, the history of income theory is traced through Ricardo, Wicksell, Keynes, to date. *Prerequisite:* 19.100.

19.302 Alternative Economic Theories and Institutions (Course)

An analysis of the theories of Karl Marx, Thorstein Veblen, the Historical School, the Institutionalists, and modern dissenters from orthodox economics. Also an analysis of non-capitalist institutions and economics. *Prerequisite:* 19.100.

19.304 Labor Economics: Poverty and Human Resources (Course)

Application of economic theory to the analysis of current labor problems, domestic and foreign. Problems include wage policy and wage differentials, manpower policy, poverty, unemployment and underemployment, discrimination, productivity, industrialization, and union policies. *Prerequisite:* 19.100.

19.305 Introduction to Quantitative Economics (Course)

Selected topics from analytical geometry, calculus, linear algebra, statistics, computers, and their application to problems in economic research and analysis. *Prerequisites:* 41.100 and 19.100 or equivalent.

19.306 Money and Banking (Course)

Role of money and credit in the economy. Structure and operations of commercial banks. The Federal Reserve System and processes and instruments of monetary policy. Nonbanking financial institutions and the structure of financial markets. Elements of monetary theory. The "flow of funds" and its use in monetary analysis. *Prerequisite:* 19.100.

19.307 Political Economy of Economic Development (Course)

Theories of economic development (classical, Marxian, and modern). Simple growth models. Development strategies in agriculture and industry, population problems and development planning. Imperialism and Dependency. *Prerequisite:* 19.100.

19.308 History of Economic Development (Course)

An historical investigation of the economic development process using Europe and the United States as case studies. Emphasis is placed on economic theory to illuminate the process of historical development. *Prerequisite:* 19.100.

19.309 Public Economics (Course)

Introduction to the theory of taxation, public expenditure and fiscal policy. Comparative survey of fiscal institutions in the U.S. and abroad. Government approaches to income redistribution and problems of poverty: negative income tax, family allowances, etc. *Prerequisite:* 19.100.

19.310 Introduction to Econometrics (Course)

Introduction to the theory of economic statistics and statistical techniques. Emphasis will be upon applying statistical models to economic data. Introduction to probability, significance testing, elements of correlation, regression analysis, and testing hypotheses. *Prerequisites:* 19.100 and 41.100 or equivalent.

19.311 International Economics (Course)

In the fall semester the course is for non-economics majors. The class is less theoretical than in the spring semester and more concerned with current trends and policy issues. The spring semester course is designed for economics majors only. It stresses the theory of international trade, economic integration, foreign investment and capital movements, and international monetary affairs. *Prerequisite:* 19.100.

19.314 Junior/Senior Seminar (Course)

This course is designed to encourage all economics majors to do independent research during their junior and senior years. Topics will be chosen by professors and students involved. *Prerequisite:* Junior or senior standing in economics.

19.315 Urban Political Economy (Course)

The economic functions of cities, pollution, metropolitan decentralization, urban growth and development, transportation, urban form and structure, housing markets and discrimination, land-use patterns, urban renewal, local government finance, and poverty. *Prerequisite:* 19.100.

19.318 Asian Economic Problems (Course)

A lecture and discussion course on economic problems, especially those related to modernization, in contemporary East, Southeast, and South Asia. *Prerequisite:* 19.100. Offered fall semester, odd-numbered years.

19.319 Methodology of the Social Sciences (Course)

Philosophy and methodology of the social sciences with emphasis on economics. Historical and institutional methodologies. *Prerequisite:* 19.100.

19.390 Independent Reading Course in Economics (Quarter-course to double course)

See page 32.

19.490 Independent Study Project in Economics (Quarter-course to double course)

See page 32.

Advanced Courses

Undergraduate students enrolled in .500 level courses receive one course unit.

(.500-level courses are open to graduate students and qualified advanced undergraduates; .700-level courses are open only to graduate students.)

General Economic Theory

19.500 Price Theory (3)

Theory of resource allocation and the price system. Theory of demand, production, and distribution. Market structure and performance. *Prerequisite:* 19.300 or permission.

19.501 Income Theory (3)

The Keynesian model of income determination. Detailed study of consumption, investment and interest rate theories. The Keynesian and classical systems compared. *Prerequisite:* 19.301 or permission.

19.502 Income Theory II (3)

Macroeconomic models. Theories of inflation. Monetary and fiscal theories. Theories of growth. *Prerequisite:* 19.501.

19.506 Theory of Political Economy (3)

Examination of the interdependence of political, economic, and social forces in society as they relate to contemporary societal problems. Topics covered: methodology of political economy; conservative, liberal, and radical theories of political economy; class, power, and stratification in different societies; theory of the state and its role in society. *Prerequisite:* permission of instructor.

19.510 Cost-Benefit Analysis (3)

Theoretical and methodological alternatives in identifying the economic and non-economic costs and benefits of development projects. The methods and techniques necessary in carrying out alternative cost-benefit estimates on development projects. Problems of under- and over-specification; problems and uncertainties in assessing non-quantifiable impacts. *Prerequisites:* 19.500 and 19.501.

19.603 Introduction to Economic Theory (3)

An intensive introduction to the major analytical tools of price theory and income theory. Not open to Economics graduate student. *Prerequisite:* 19.100.

19.703 Microeconomic Analysis (3)

The theory of demand. The theory of production and distribution. The theory of supply. *Prerequisite:* permission.

19.706 Seminar in Political Economy (3)

Research seminar in the application of the method and substance of political economy as it relates to traditional economic problems and contemporary societal problems. *Prerequisite:* permission of instructor.

19.770 Seminar in Economic Theory: Price (3)

Theory of market structure and performance. Capital theory and theory of economic growth. Welfare economics. *Prerequisite:* 19.500 or 19.703.

19.771 Seminar in Economic Theory: Income (3)

Advanced analysis of problems of income determination and economic growth. Discussion and supervised research. *Prerequisite:* permission of instructor.

19.772 Seminar in Economic Theory: Welfare (3)

Advanced analysis of problems in welfare economics. Discussion and supervised research. *Prerequisite:* permission of instructor.

Quantitative Economics**19.521 Mathematical Economic Analysis (3)**

Mathematical analysis of economic theory and problems. Linear programming, input-output, Lagrange multipliers, difference and differential equations. *Prerequisite:* 41.222 or permission.

19.522 Econometrics I (3)

Theory of economic statistics and development of statistical models to be applied to economic data. Probability theory, statistical criteria, hypothesis testing, correlation and regression analysis, analysis of variance; emphasis will be upon application to economic data. *Prerequisite:* 3 hours of undergraduate statistics.

19.523 Econometrics II (3)

A review of regression analysis and statistics, testing of hypotheses, a rudimentary treatment of the problem of aggregation, identification, multicollinearity and serial correlation; sources of economic data; an examination of computers in economics. *Prerequisites:* 19.521 and 19.522 or 6 hours of undergraduate statistics.

19.785 Seminar in Mathematical Economics (3)

Application of mathematical methods to the study of economics. Advanced study of static and dynamic models. *Prerequisites:* 19.521, 41.222, and 41.223 or permission.

19.786 Seminar in Econometrics (3)

Advanced quantitative analysis. Construction of stochastic economic models. Problems of specification, estimation, verification and prediction. *Prerequisite:* 19.523.

Money, Credit, and Banking**19.525 Political Economy of International Finance (3)**

Balance of payments accounts, modern theories concerning

interrelations between price level, balance of payments, and capital movements. Foreign exchange markets, foreign investments and capital movements. International financial organizations. The international monetary system and its reform; neo-imperialism. *Prerequisites:* 19.306 and 19.311. Fall semester of alternate years.

19.530 Central Banking (3)

Comparative Institutional and policy analysis of central banks. Relations to government and formulation of monetary policy. Quantitative and qualitative instruments. Monetary policy and economic growth in advanced countries. The role of central banks in developing countries. Central banks and international monetary institutions and arrangements. *Prerequisites:* 19.301 and 19.306. Offered odd years only.

19.531 Financial Markets (3)

Comparative analysis of financial markets in advanced and developing countries. Formative factors, nature, and functions. Sectors, institutions, and instruments. Sources and uses of funds and the influence of official and international policies and operations. Role in development programs and their behavior under inflation and stabilization conditions. *Prerequisites:* 19.300, 19.301, and 19.306. Offered even years.

19.532 Monetary Theory and Policy (3)

Evolution of theories of money and interest in their relation to saving, investment, and income. Concepts of time and liquidity of preference, role of velocity in income determination. Relation of theory to market processes and monetary policies. The role of credit policy in the economy. *Prerequisites:* 19.300, 19.301, and 19.306. (May not be taken by students who have already taken 19.731 for credit.)

19.533 Development Banking (3)

The role and functions of institutions specializing in development financing, including public, private and mixed development banks, with analysis of their respective advantages and disadvantages in the light of past experience. Also, relations of development banks to money and capital markets—competitiveness and compatibility with other financial institutions; the sources of funds; the use of funds, autonomous and syndicated operations; management of loan, bond and equity financing, etc.; project generation and selection, technical market and socio-political evaluations; fund management and project supervision; loan repayment and successive financing and development banking as instruments of development promotion. *Prerequisites:* 19.500 and 19.501.

19.780 Seminar in Monetary Economics (3)

Economic and monetary trends and their interrelationship. Federal Reserve policies and government financial operations and their effects on money and capital markets. Review of current economic indicators and monetary and financial statistics. Discussion and supervised research. *Prerequisite:* 19.532 or permission.

Economic Policy**19.541 Public Economics I (3)**

Rationale for the existence of the public sector. Theory of public goods. Theory of taxation. *Prerequisites:* 19.500 and 19.501 or permission.

19.542 Public Economics II (3)

Analysis of public expenditure. Cost-benefit analysis, budgeting, fiscal policy. *Prerequisite:* 19.541 or permission.

19.544 Survey of Urban Political Economy (3)

The economic functions of cities; pollution, metropolitan decentralization, urban growth and development, transportation, urban morphology, housing markets and discrimination, land-use patterns, urban renewal, and local government finance. *Prerequisite*: 19.500 or permission of instructor.

19.783 Seminar in National Economic Policy (3)

Economic aspects of leading problems in public policy. Formulation of national economic policy: planning principles and data bases. Discussion and supervised research. *Prerequisite*: open to advanced Ph.D. students and as terminal seminar for M.A. candidates, others by permission.

19.787 Seminar in Public Economics (3)

Discussion of the role of taxation and government expenditure. Optimal tax structure. Optimal public expenditure. Role of fiscal policy in stabilization and growth. *Prerequisites*: 19.541 and 19.542 or permission.

19.789 Seminar in Urban Political Economy (3)

Selected advanced topics. Discussion and supervised research. *Prerequisite*: 19.544.

International Economics

19.551 International Economic Theory (3)

Theory of international specialization, world trade and development, commercial policy, balance of payments. *Prerequisites*: 19.300 and 19.301.

19.555 Political Economy of Latin America: theories vs Problems (3)

Review of Development Theory. Structural problems: economic, social, and political institutions. External dependency and internal instability: trade, foreign investment, aid, and unemployment, population, technology. The role for integration. Current fiscal and monetary policies. *Prerequisites*: 19.307 and 19.301 or 19.300 or permission.

19.558 Current International Economic Problems (3)

A lecture and discussion course dealing with international trade policy. International economic cooperation and integration, international factor movements (migration, foreign investment, foreign loans, foreign aid) and the international monetary system and its reform. Particular attention will be paid to the international economic problems of low-income countries and to U.S. foreign economic policy. *Prerequisite*: 19.311.

19.784 Seminar in International Trade and Finance (3)

Beginning with the international economic problems of low-income countries, deals with the major current problems of the international economy, including trade problems and policies, foreign aid, foreign investment, economic integration, the U.S. balance of payments and the international monetary system. *Prerequisite*: 19.551 or permission.

Economic Development

19.533 Economic Problems of Southern Asia; Survey (3)

Analyzes major economic features, problems and policies, especially as they relate to the modernization process, in the region that includes India, Pakistan, Ceylon, Burma, Thailand, Cambodia, Laos, Vietnam, Malaysia, Singapore, Indonesia, and the Philippines. *Prerequisite*: permission. Offered Fall semester, even-numbered years.

19.554 Economic Problems of Southern Asia: Case Studies —Indonesia, Malaysia, and Singapore (3)

Analyses, comparisons and contrasts, especially as related to modernization in the economies of the three countries. Especially recommended for students wishing intensive study in economic development, or in the countries concerned. *Prerequisite*: permission. Offered Spring semester, odd-numbered years.

19.559 Patterns and Problems of Economic Development in Asia (3)

An examination of economic development, its history, its trends and its problems in Japan, China, and the formerly colonized areas, especially India, Pakistan, and Indonesia. Looks for lessons in the Japanese experience and those of the more or less socialized countries, and those of the more or less open economies. *Prerequisite*: permission. Offered Spring semester, even-numbered years.

19.560 Economic Development (3)

Patterns, theories, and models of economic development of advanced and underdeveloped economies. Some historical theories and approaches to economic development. Theoretical concepts and issues in development planning. *Prerequisite*: permission.

19.561 Development Planning (3)

This course will be concerned with both macro and micro aspects of development planning. Both plan formulation and implementation will be considered. Theory will be compared with actual experience. The course will consider selected developed, less developed, socialist, mixed-economy countries in Africa, Asia and Europe as well as the Americas. *Prerequisite*: permission.

19.788 Seminar in Economic Development (3)

Trends in living standards, economic planning programs, capital formation, industrial-agricultural techniques, monetary and fiscal structures, income distribution, foreign trade of underdeveloped countries. *Prerequisite*: 19.307 or 19.561.

Labor Economics

19.571 Labor Economics: Theory (3)

Theories used to explain the emergence of labor organization; history of the development of labor organization; theories of exploitation and alienation; contemporary theories of wages, employment and prices; collective bargaining in a comparative context; the impact of collective bargaining on the American economy; theories and empirical studies of wage differentials. *Prerequisites*: 19.300 and 19.301.

19.790 Seminar in Current Labor Problems: Poverty and Human Resources (3)

Analyzes causes and consequences of poverty in the American economy. The meaning and measurement of poverty; economics of inequality; income distribution; causes of poverty, including low wages, low incomes, unemployment; economics of racism; economics of education; policies to alleviate poverty: manpower, education; income maintenance; income redistribution. *Prerequisites:* 19.300 and 19.301.

History of Economic Thought

19.504 Economic Thought (3)

The major figures in the history of economic thought in terms of their social and economic thought and the tools of analysis they created. *Prerequisites:* 19.300 and 19.301.

19.704 Seminar in Economic Thought (3)

Special topics in the history of economic thought, with emphasis on problems of methodology and philosophy. *Prerequisite:* 19.504.

History of Economic Development

19.507 Economics of American Development (3)

A statistical and analytical investigation of long-run behavior of national income, population, savings, investment, consumption, labor productivity, and other factors affecting economic growth in the U.S. The concepts of dual economy and balanced growth. *Prerequisite:* permission.

19.508 European Economic Development (3)

Origins and development of capitalism in the western world, with emphasis on Britain. Emphasis is placed on economic theory to illuminate the process of historical development. *Prerequisite:* permission.

19.709 Seminar in Economic History (3)

Selected topics and research in economic history—American and European. *Prerequisites:* 19.507 and 19.508.

Comparative Economic Systems

19.512 Theory of Comparative Economic Organization and Institutions (3)

The course will integrate economic theory and institutional analysis in evaluating comparative economic organization and institutions. Criteria for evaluating economic performance will be stressed. Lengthy descriptions of institutions will be omitted. *Prerequisites:* 19.300 and 19.301.

19.552 Structure and Operation of the Soviet Economy (3)

Rate of economic growth, changing structure of the economy

with emphasis on period since 1928. Conditioning factors. Planning techniques and procedures. International economic relations. *Prerequisite:* 19.100.

19.791 Seminar in Comparative Economic Systems (3)

Advanced analysis of problems in comparative economics. Discussion and supervised research. *Prerequisite:* 19.512 or permission.

19.590 Independent Reading Course in Economics (1-6)

See page 32.

19.690 Independent Study Project in Economics (1-6)

See page 32.

19.797 Masters Thesis Seminar (3-6)

19.799 Doctoral Dissertation Seminar (6-24)

EDUCATION

21.250 Mathematics for Elementary School Teachers (Course)

Provides elementary school teachers with background for teaching Mathematics. *Prerequisite:* 41.100 or equivalent.

21.300 Foundations of Education: Social and Historical Bases: Philosophical and Psychological Principles (one and one-half courses)

History of education; educational sociology, psychological, sociological, and physiological factors of human growth, development, and principles of learning. Elementary and early childhood education majors participate in a full day student aide experience (8:30-2:30) once a week in an elementary school situation in addition to regular class meetings (one 75-minute session and one activities session of 2 hours and 40 minutes per week). Secondary education students participate in one 3-hour block of student aide experience per week in a secondary school situation. Students must provide their own transportation to their student aide field experience assignments. This course is a prerequisite to all other undergraduate courses in the department. *Prerequisites:* 57.200 or 57.210, sophomore standing or above, and a grade point average of 2.30. Prior to registration, permission must be obtained from Director of Field Experiences.

21.320 Psychology of Education (Course)

Psychological problems encountered in education. Nature and control of learning; theories of motivation; development of skills and knowledge; creative learning and critical thinking. *Prerequisites:* 57.200 or 57.210. Not offered to students who have taken 21.300.

21.340 Methods and Materials in Secondary Education: General and Special: English, Social Studies, Science, Mathematics, and Foreign Languages (Course)

General methods, materials and applications to special subject fields; laboratory experiences in the university classroom and in area secondary schools. Students provide their own transportation to the field assignments. To be taken concurrently with 21.445 Student Teaching. *Prerequisites:* 21.300 or equivalent, a grade point average of 2.50 and admission to a program of teacher education.

21.342 Methods of Teaching in Secondary Schools: General (Course)

General teaching methods; some opportunity to apply principles to certain specialized subject-matter fields. Laboratory experiences in secondary schools in the Washington area and in use of educational resources. Students provide their own transportation to field experience, assignments. *Prerequisites:* 21.300 or equivalent and a grade point average of 2.5. Offered only off-campus. Not offered to students who have had 21.340.

21.345 Children's Literature (Course)

Literature and poetry related to the interests and abilities of children and young adults. A study of tradebooks and related materials from the viewpoint of their value in the developmental process of the individual. Techniques and aids for stimulating reading interests. The use of tradebooks and poetry in the school curriculum. Not open to Freshmen or Sophomores.

21.350 Methods and Materials in Early Childhood and Elementary Education: General and Special: Reading, Language Arts, Mathematics, Social Studies, and Natural Sciences (Double Course)

Materials and methods for use in teaching elementary school subjects. Laboratory experiences in university classroom, in area elementary schools, and in the use of other educational resources. Students provide their own transportation to the field experiences, assignments. *Prerequisites:* 21.300, or the equivalent, a grade point average of 2.50, and admission to a program of teacher education.

21.390 Independent Reading Course (Quarter to Double Course)

See page 32.

21.427 Inner-City Education (Course)

Individual involvement in community action programs. Weekly seminar and three hours of participation in the field. University-wide endeavor for students to explore own area of concern. *Prerequisite:* Interview with instructor. Roper Hall.

21.444 Student Teaching: Early Childhood and Elementary (Triple or Quadruple Course)

Teaching in grades K through 6. Conferences arranged with

university supervisor; seminars at frequent intervals. Four course units (15 weeks) of student teaching required for elementary education majors. Three course units (12 weeks) of student teaching may be taken by those with a bachelor's degree doing their student teaching for certification purposes only. Students provide their own transportation to the field experience, assignments. *Prerequisites:* senior status; 21.300 and 21.350 or the equivalents; a grade point average of 2.5; and admission to a program of teacher education. Must apply by October 1 or March 1 for following semester.

21.445 Student Teaching: Secondary Schools (Double and a half, Triple or Quadruple Course)

Observation, participation, and teaching in grades 7 through 12. Conferences with university supervisor, seminars at frequent intervals. Students provide their own transportation to student teaching assignment. Four course units require 15 weeks of student teaching and may be taken only by those who have previously completed 21.340 or equivalent. 2 1/2 course units require 9 weeks of student teaching, and 3 course units require 12 weeks of student teaching and either is to be taken concurrently with 21.340 or equivalent. *Prerequisites:* senior status; 21.300 and 21.340 or equivalents; a grade point average of 2.50 and admission to a program of teacher education.

21.490 Independent Study Project (Quarter to Double Course)

See page 32.

21.099 Maintaining Matriculation (no credit)

The University requires students who have been admitted to graduate degree programs to register each year for the entire academic year until they complete their entire program. Accordingly, those who do not enroll in any courses or research seminars or apply for comprehensive examinations during the fall semester must register in the fall semester of each academic year under the designation .099 Maintaining Matriculation (no credit) and pay the required fee (nonrefundable). A subsequent spring or summer registration does not invalidate the necessity for registering in the fall semester.

21.510 Philosophy of Education (3)

Examination of the thought of leading philosophers on education: Plato, Augustine, Locke, Dewey, etc., and of contemporary schools in philosophy of education such as existentialism and analytic philosophy. *Prerequisite:* permission.

21.511 History of Education in Western Culture (3)

Consideration of educational ideas and institutions in Greco-Roman culture, the Christian middle ages, the Renaissance, and the Atlantic nations since 1789; with emphasis on intellectual, social, religious, economic, and political factors shaping educational development.

21.512 History of Education in the United States (3)

European inheritance in colonial education; development of American educational ideas and institutions during the nineteenth century, the progressive epoch, and post-progressive period; emphasis on intellectual, social, religious, economic, and political factors shaping American education.

21.513 History of Higher Education in the United States (3)

European universities in the middle ages, English reformation,

and nineteenth century. American colleges and universities beginning with Harvard College, but concentrating on the history of American higher education since 1869.

21.520 Advanced Psychology of Education (3)

Psychological principles and research having special relevance to education, including a consideration of motivation, attitudes, mental abilities, and the psychology of school subjects. *Prerequisite:* 21.300 or 21.320 or equivalent.

21.521 Mental Health in Schools (3)

Analysis of factors promoting mental health, consideration of application of mental health concepts to the educational setting.

21.522 Evaluation of Student Progress (3)

Materials and methods for use in evaluating student's progress, especially at the elementary and secondary school levels. Required of most students working on graduate degree programs in education. *Prerequisite:* 69.202 or 21.525.

21.525 Educational Statistics I (3)

Measures of central tendency and variability, probability and sampling, correlation, tests of significance. Chi Square, analysis variance.

21.530 The Teacher and Educational Administration (3)

Administrative duties and relations of the teacher with reference to guidance, curriculum and financial responsibilities, includes consideration of school work involving cooperation between or among teachers, supervisors and administrative officers. *Prerequisites:* 21.300 and 21.340 or 21.350, or the equivalents. For students *not* majoring in educational administration.

21.531 School Administration (3)

Helps prospective elementary and secondary school administrators acquire better knowledge and understanding of administrative principles, concepts and practices used in the schools. *Prerequisites:* 21.300, and 21.340 or 21.350, or the equivalent.

21.541 Special Education for Exceptional Children (3)

Characteristics of exceptional children and of the problems in providing education programs to meet their needs. *Prerequisites:* 21.300 and 21.340 or 21.350, or the equivalent.

21.542 Special Education for Retarded Pupils (3)

Class work and group activities for retarded children in public and private schools; emphasizes assessment, identification and program development. *Prerequisites:* 21.300 and 21.340 or 21.350, or the equivalents.

21.543 Special Education for Gifted Pupils (3)

Class work, group, and individual activities for gifted children in elementary and secondary schools; emphasis on identification and program development. *Prerequisites:* 21.300 and 21.340 or 21.350, or the equivalents.

21.551 Philosophy and Practices in Guidance (3)

An overview of the nature of guidance and counseling programs. A general investigation into the nature of counseling, theories and techniques of counseling; into educational and vocational information and guidance services; into the testing and diagnostic aspects of guidance and counseling programs, and into legal and ethical issues of guidance and counseling. Students carry on basic interviewing sessions with one another. This course is a prerequisite to all other courses in the school counseling program. *Prerequisites:* Admission into a graduate degree program, one course in child or adolescent psychology; one course in personality theory recommended. *Requirement:* A tape recorder.

21.552 Analysis of the Individual for Counseling (3)

An overview of pupil appraisal methods and how such methods relate to counseling. Attention is given to the development of advanced skills in counseling through supervised micro-counseling sessions. Student must have available a cassette portable tape recorder, and be available one day time hour per week, in addition to class time, for supervision. *Prerequisite:* 21.551 and graduate admission into a program in school counseling.

21.553 Techniques of Counseling in Education (3)

Counseling theories and techniques. Examination of contemporary theories of counseling; discussion of techniques and issues in counseling; practice interviewing and counseling. *Prerequisites:* 21.551 and admission into graduate degree program in school counseling.

21.554 Vocational Analysis, Information and Placement (3)

Administration and interpretation of vocational tests; methods and techniques of preparing and presenting occupational information; research and theories of vocational choice; theories and practices in placement. *Prerequisites:* 21.551 and admission into a graduate degree program in school counseling.

21.571 Foundations of Reading Instruction (3)

Broad considerations underlying the teaching of reading with special emphasis on reading disability and the problems of the retarded reader. *Prerequisite:* 21.300 or equivalent.

21.572 Developmental Reading (3)

A course which considers reading as a developmental phenomenon. The course begins with the prelanguage experiences of infancy and considers each linguistic stage of human development as these developmental aspects are related to the reading process. The course inquires into basic causes for reading disability and the characteristics of each developmental stage of the reader from childhood to maturity of adulthood. *Prerequisite:* 21.571.

21.581 Physical Sciences for Elementary School Teachers (3)

Recent findings in physics with special reference to science knowledge expected on the part of the elementary school teachers.

21.582 Biological Science for Elementary School Teachers (3)

Recent findings in biology with special reference to science knowledge expected of elementary school teachers.

21.583 Curriculum Construction (3)

Psychological, cultural, and educational bases of elementary and secondary school curriculum and higher education. Practice in construction of curriculum materials. *Prerequisites:* 21.300 and 21.340 or 21.350 of the equivalents.

21.590 Independent Reading Course (1-6)

See page 32.

21.622 Developmental Psychology (3)

Psychological, physiological, and sociological aspects of human development stressing applicability to the educator and the educative process.

21.623 Learning Theories in Education (3)

Study of classical and recent theories of learning. Selected research in human learning and principles of learning process. *Prerequisite:* 21.520.

21.624 Education and Modern Social Problems (3)

Analysis of the social basis of the curriculum. Special reference to pupil needs. Current developments and methods of adapting the school to society.

21.625 Educational Statistics II (3)

Further application of analysis of variance, multiple correlation, analysis of covariance, non-parametric techniques, discriminant analysis. *Prerequisites:* 21.525 or a basic statistics course at the graduate level and permission of instructor.

21.632 Problems of School Management (3)

Problem approach to the study of internal school management; administrative problems related to pupil and teacher personnel.

21.633 Financial and Business Administration for Schools (3)

School budgets, bonds, and taxes. Selecting, buying and distributing supplies and equipment. Accounting systems for finances and material. Other business aspects of education. *Prerequisite:* 21.531 or equivalent.

21.634 Essentials of School Law (3)

Study of laws governing education in the United States, with special reference to the District of Columbia, Maryland and Virginia.

21.644 Diagnosis and Correction of Learning Disabilities (3)

Diagnosing general and specific learning disabilities. Developmental and remedial techniques for correction of learning disabilities. Clinical experience. *Prerequisites:* 21.520, 21.525 and permission of instructor.

21.655 Group Counseling and Guidance (3)

Experiential or T-group (laboratory) approach to group counseling and guidance principles, techniques, and methods. Students become the group and experience participant as well as leadership roles. Combination of group dynamics and encounter techniques explored in atmosphere in which the group ac-

cepts responsibility for itself. *Prerequisites:* 21.551, admission to a graduate degree program in school counseling, and permission of instructor.

21.656 Seminar: Psychological Evaluation (3)

Description and practical use of the WISC, WAIS, Stanford-Binet Intelligence Scale, and examination of projective instruments. *Prerequisites:* 21.551, 21.552, 21.553, 21.554, and admission to a graduate degree program in school counseling.

21.659 Practicum in Counseling (3-6)

Field Practicum: 250 hours per three credits. Students are encouraged to take the course for 6 credits. M.Ed. candidates are placed in schools in the metropolitan area (elementary, junior high school or high school) for 3 1/2 days per week and return to the University for a half-day seminar. Students work closely with their school's counseling personnel. Students must make application for the Fall semester practicum by July 1 and for the Spring semester by November 15. *Prerequisites:* 21.551, 21.552, 21.553, 21.554 and permission.

Counseling Center Practicum: A two-semester (3 s.c.) sequential experience (Fall then Spring) limited to six doctoral per year. Practicum provides opportunities to observe and participate in many of the University Counseling Center's activities. Systematic training using the Ivey-Carkhuff model as well as training in behavioral techniques are included. Students must make application for the Fall Semester practicum by July 1 and for the Spring Semester by November 15. *Prerequisites:* 21.551, 21.552, 21.553, 21.554 and permission.

21.661 Student Personnel Services in Higher Education (3)

Philosophical, psychological, and sociological bases for student personnel services. Emphasis on program, staff, budget, housing, and activities in student personnel services in higher education.

21.662 Organization and Administration of Guidance Services (3)

Principles, procedures, and practices in organization and administration of guidance services. Special attention to selecting staff, in-service training of staff, organizational patterns, ways of initiating a guidance program, and means of evaluating the program.

21.663 The Community College (3)

The community college in the United States. Attention focused on organizational patterns, diversity of function, student and faculty, and current problems of the two-year institution.

21.664 Principles of College Teaching (3)

Analytical study of teaching on the college level. Consideration of instructional methods as they relate to research and psychological bases. Use and effectiveness of various teaching media is examined. *Prerequisite:* permission.

21.665 Organization and Administration in Higher Education (3)

Theory and practice of organization and administration in higher education. Provides prospective administrators with an understanding of governance in academic institutions through a study of the nature of organization, administrative processes, and administrative practices. Emphasis is upon theoretical formulations as well as administrative action. Incumbent administrators will also find it valuable as a basis for providing more effective leadership in present positions.

21.666 Educational Materials and Techniques (3-6)

Workshop course covering principles, methods, curriculum construction, administration, guidance, testing, and student personnel services.

21.673 The Diagnosis of Reading Disability (3)

Diagnosing causes of reading disability and prescribing proper treatment. Practicum work with children who exhibit reading disability. *Prerequisites:* 21.520, 21.571, and permission of instructor.

21.682 School Supervision (3)

For prospective and in-service supervisors for elementary and secondary schools. Purposes, principles, and techniques of supervision. *Prerequisites:* Qualification for a teacher's certificate and/or teaching experience.

21.683 Supervision of Student Teachers (3)

Guidance for supervising teachers and others in work with student teachers. *Prerequisites:* Qualifications for a teacher's certificate, and teaching experience.

21.690 Independent Study Project (1-6)

See page 32.

21.710 Seminar in Teaching (3)

To operate as a cycle stressing, from semester to semester, the following areas: curriculum construction, public relations, school administration and supervision, educational research, and methods and materials of teaching. May be repeated for credit. *Prerequisite:* permission.

21.765 Seminar in Education: Student Personnel Services in Higher Education (3)

Critique of issues and problems in contemporary programs of student personnel services. *Prerequisite:* permission.

21.769 Internship in Student Personnel Services in Higher Education (3-6)

For advanced students in student personnel services in higher education. Students are assigned to an area or areas of a program of student personnel services for exploratory administrative case and research experience. *Prerequisites:* 21.661, 21.662, 21.765, and permission.

21.790 Educational Research (3)

Fundamentals, methodology, and materials for educational research. Required of all students. *Prerequisites:* 21.525 or equivalent, and admission to a graduate degree program in education.

21.791 Research Seminar in Education (3)

A seminar-type course in which a comprehensive research paper is required. Designed especially for M.Ed. candidates. A letter grade of "B" or better is required to receive credit for this course. *Prerequisite:* 21.790.

21.792 In-Service Training Project: Internship in Education (3-12)

Internships in cooperating local school systems as an integral

part of degree programs in areas such as administration, reading, or special education. *Prerequisite:* permission of department.

21.797 Master's Thesis Seminar (3-6)

At least three hours required of all students working on a master's thesis. *Prerequisite:* 21.790.

21.799 Doctoral Dissertation Seminar (3-12)

Required of all students working on doctoral dissertations. *Prerequisites:* 21.790 and advancement to candidacy for a doctor's degree.

Institutes**31.565 Institute: Counseling the Disadvantaged (3)**

Eight-week workshop dealing with the issues and problems involved in counseling disadvantaged youth. Lectures, small group discussions, field trips and panel presentations. Designed for teachers, in-service counselors, counselor trainees and local, state, and federal employees involved in counseling disadvantaged youth.

31.631 Institute on Reading and Learning Disabilities (3)

Guided experiences in remedial reading; diagnosis and correction of learning disabilities with children and youth. To be taken in conjunction with 21.673 and 21.644, thus providing students with work toward meeting requirements for teachers of special education, reading specialists, psychologists, counselors and classroom teachers. See *Institutes* page 158.

American University / Hillcrest Program

Prerequisite: Open only to full-time graduate students accepted and enrolled in The American University-Hillcrest-HEW, Office of Education experimental training project.

21.501 Language Arts and Social Studies Curricula in Special Education (2)**21.502 Methods of Managing Inappropriate Classroom Behavior (2)****21.503 Theories and Practices in Special Education (2)****21.504 Methods of Psycho-Educational Assessment (2)****21.505 Methods of Studying Group Behavior in Special Education, I (2)****21.506 Mathematics and Science Curricula in Special Education (2)**

- 21.507 Theories of Child Development (2)**
- 21.508 Theories and Methods of Urban Education Curriculum (2)**
- 21.509 Methods of Remediation in Special Education (2)**
- 21.605 Methods of Studying Group Behavior in Special Education II (2)**

Government and Public Administration

UNDERGRADUATE POLITICAL SCIENCE CURRICULUM

Required Courses

All SGPA majors are required to take three basic courses: (1) Modern Government (53.100); (2) American Government and Politics (53.150); and (3) International Politics (33.201). All political science majors are expected to complete these three courses before proceeding to courses at the .300 level.

53.100 Modern Government (Course)

Comprehensive introduction to study of political science. Emphasis on theory, processes, and institutions of politics and government in the modern world. Nature and functions of political systems in society. Principal ideological conflicts today. Theory and practice in countries in varying stages of economic and political development.

53.150 American Government and Politics (Course)

American democratic theory, constitutional and political development of the national government, changing relationships of national, state, and local governments. Emphasis on major national institutions involved in policy-making, and socio-economic functions which they perform. This course is a *prerequisite* for all .300-level courses in the American Government and Public Policy groups. It may be waived for students who have passed the American Government examination of the College Level Examination Program (C.L.E.P.), or by permission of the instructor of the advanced course to be taken.

Areas of Study

Six courses are required from the following groups of .300-level courses and the .400-level "Topics" courses listed subsequently. At least one "Topics" course is required, but no more than two of the six courses may be "Topics."

POLITICAL THEORY

53.310 Early Political Thought (Course)

Political thinkers, theorists, and movements from Plato through the Middle Ages.

53.311 Modern Political Thought (Course)

Analysis of major political thinkers from the Renaissance to the twentieth century.

53.312 Introduction to Political Inquiry (Course)

Research issues, sources, approaches, and methods.

AMERICAN POLITICS

53.320 Political Behavior (Course)

Elections and electoral behavior. Roles of public opinion, interest groups, social movements, and political parties in plural societies. Problems in political participation, communication, representation, and leadership.

53.321 Congress and the Presidency (Course)

Role of the national legislature and executive in the policy making process.

53.322 Bureaucracy and Administration (Course)

Theories, organization and management of the public sector. Substantial emphasis on policy making within the federal executive.

53.323 Law and the Political System (Course)

Basic notions of law; American legal system. Analysis of role of courts, their actors and processes, in policy-making process. Problems of law enforcement and correctional system.

53.324 Metropolitan Politics (Course)

Growth of cities and metropolitan areas. Evolution of city and its surrounding areas as focus of public policy. Analysis of decision-making techniques, intergovernmental relations and ethnic politics. Implications of social planning, urban violence, financial resources and suburban attitudes on metropolitan politics and policy making.

53.325 Politics of Afro-America (Course)

Politics of Afro-America, historically and analytically considered. Discussion of the external forces which control the Black community in America. Relation of Afro-America to the African and non-white world. Analysis of the feasibility and viability of Black Nationalism. Articulation and direction of the Black Revolution.

53.326 State Government and Politics (Course)

Introduction to state government. Federalism, relationships among state and local governments, regional, state, and local cooperation. Emphasis on the major state institutions involved in policy making, and socio-economic functions which they perform.

53.327 American Constitutional Development (Course)

Nature of constitutionalism and role of constitutional interpretation; judicial power and review. Consideration of important Supreme Court decisions and their impact on development of the American political system.

COMPARATIVE POLITICS**53.330 Comparative Politics of Industrial Societies (Course)**

Political change and development of selected industrial societies: Britain, France, West Germany, the Soviet Union, and Japan. Comparative study of political leadership, participation, content of public policy, and the policy-making process. Emphasis on the socio-economic, cultural, and international setting of politics.

53.331 Comparative Politics of Agrarian and Industrializing Societies. (Course)

Political order and change in selected countries of Africa, Asia, and Latin America, with emphasis on the themes of nation-building, ideologies of development, the interplay of elites and masses, and the role of the military.

PUBLIC POLICY**53.340 Government and Social Policy (Course)**

Forces shaping the government's role in social and economic policy. Analysis of substantive policy and program areas: labor, anti-trust, transportation, health, welfare, civil rights, education, urban and environmental policy.

53.341 Civil Rights and Liberties (Course)

Analytical treatment of Supreme Court policy making in the area of civil liberties, with emphasis on the First and Fourteenth Amendments, including constitutional doctrines, current trends, and prospective problems.

SPECIAL TOPICS COURSES

At least one "Topics" course from each group will be offered every semester, and frequently more. The special subjects will be announced in semester bulletins. Permission of the instructor is required for registration in a "Topics" course.

53.410-419 Topics in Political Theory (Course)

Various topics, as scheduled, e.g., American political thought; Marxism and socialism; empirical political theory; politics and literature; non-Western political thought.

53.420-429 Topics in American Politics (Course)

Various topics as scheduled, e.g., the Presidency and foreign policy; politics of the budgetary process, the politics of organization; peace politics; political campaigning; communications and politics; federalism; comparative state politics.

53.430-439 Topics in Comparative Politics (Course)

Various topics as scheduled, e.g., comparative party systems, comparative public administration. Latin America, Middle East, etc.

For related work, consider the various SIS courses which are styled *Introduction to (region)*.

53.440-449 Topics in Public Policy (Course)

Various topics as scheduled, e.g., welfare, environmental problems, urban, resources, military and defense, public enterprise, science policy.

SPECIAL COURSES AND INTERNSHIPS

(All counted as one course, unless otherwise specially arranged with the associate dean of SGPA.)

56.390 Readings in Government (Quarter Course to Double Course)

As specially arranged with supervising faculty member and the associate dean of SGPA.

56.490 Independent Project in Government (Quarter Course to Double Course)

As specially arranged with supervising faculty member and associate dean of SGPA. See p. 50.

56.396 Selected Topics (Course)

Available only as and if announced in semester bulletins.

56.395 Undergraduate Internships in Government and Politics (Quarter Course to Double Course)

As specially arranged with supervising faculty member and the associate dean of SGPA.

56.495 Tutorial Seminar for Undergraduate Foreign Students (No Credit)

A vehicle for registration for special assistance in intercultural and academic problems for foreign undergraduate students who have need for such assistance. Cost of registration determined on a special fee basis, ranging from \$200 to \$500 per semester, depending on character and extent of assistance required.

56.498 Honors Tutorial Reading in Political Science**56.499 Honors Seminar and Public Affairs Laboratory in Political Science**

THE WASHINGTON SEMESTER**56.410 Washington Semester Seminar I (Course)****56.411 Washington Semester Seminar II (Course)****56.412 Washington Semester Research Project (Course)**

Each unit counts as one undergraduate course. All three units must be taken together.

This program is for advanced students enrolled from cooperating institutions, through formal inter-institutional agreements of this program. Study of U.S. government in action, through seminars with senior representatives of U.S. Government agencies, reports, conferences, lectures, and guided seminar evaluations of experience. The research project is an individual analytical report prepared under the guidance and counseling of the academic directors of the program. *Prerequisite:* Selection. All offered every semester.

Washington Semester courses, as listed above, are primarily for students who come from other institutions under the arrangements of the Washington Semester Program. Selected political science majors from The American University may participate each semester. For AU students so selected, only two of those three course units will apply on the requirements for the political science major, but this Washington Semester work may be used for the achievement of honors in political science in the same way as the honors courses which are listed above.

THE URBAN SEMESTER**56.413 Urban Semester Seminar I (Course)****56.414 Urban Semester Seminar II (Course)****56.415 Urban Semester Research Project (Course)**

Each unit counts as one undergraduate course. All three units must be taken together.

This program is open, by selection, to qualified undergraduates from The American University. Prior permission is required for registration for this program. By special arrangement, a small number of students will be admitted from the Washington Consortium universities and Washington Semester institutions. AU students may count only two of these three course units toward the requirements for the political science major. Each student in the program will attend a series of seminars and prepare an analytical report.

The purpose of the Urban Affairs Semester is to give students a broad introduction to national and local urban affairs policy making. Seminars will be held with urban-oriented committees, agencies, departments, and interest groups. Housing subcommittees of Congress, the Department of Housing and Urban Development, the Department of Transportation, for example, will be included in seminar programs. Seminars will also focus upon the relationships between national urban policies and local decision-making. Seminars will be held with urban renewal and housing agencies, local political leaders and metropolitan planning organizations. The program is designed to provide students with a broad introduction to urban problems and programs, and to examine the intergovernmental characteristics of urban affairs policy making. Individual research on urban affairs topics will be developed under the guidance of the Urban Affairs Semester directors. *Prerequisites:* 53.150, or equivalent, and permission.

56.416 Washington Semester Internship (Course)

Open only to students in the Washington and Urban Semesters, as arranged with their academic directors.

GRADUATE COURSES

The presentation of this curriculum is organized as follows:

Government
Public Policy and Administration
Special Courses and Internships

The first two of these are the areas of the graduate degree programs. These .600 and .700 level courses are open only to graduate students in degree program status or to non-degree graduate students who meet the stated prerequisites. If a course is stated simply as "graduate standing", that course is open to any non-degree student who has a Bachelor's degree.

Government**Political Philosophy****53.600 Political Thought of the Modern State (3)**

Intensive analysis of the major political philosophers from the Renaissance to the twentieth century. For graduate students who have not had a course in modern political theory. *Prerequisite:* graduate standing.

53.601 Foundations of Western Political Thought (3)

Political thinkers, theorists, and movements from Plato through the Middle Ages. Earlier theoretical foundations of Western civilization and its political institutions and concepts. Appropriate reference to the contributions of Oriental philosophies. *Prerequisite:* graduate standing.

53.602 Contemporary Political Thought (3)

Background and major issues of twentieth century political thought. Contemporary theories and ideological movements. Theoretical implications and contributions of functionalism and behavioralism. *Prerequisites:* 53.600, or equivalent, and graduate standing.

53.603 Marxist and Non-Marxist Socialism (3)

Origins and characteristics of socialist philosophies, ideologies, and doctrines, and their relations to derivative political movements. Their significance for contemporary understanding of the ideological orientations of the developing and the communist nations. *Prerequisites:* 53.600, or equivalent, and graduate standing.

53.604 American Political Theory (3)

Major concepts and ideas of American political thought, especially those influencing development of the American system of government. *Prerequisite:* graduate standing.

53.605 Non-Western Political Theory (3)

Political theories and politically-related philosophical concepts

of non-Western cultures; influence on their own cultures and others. *Prerequisite:* graduate standing.

53.700 Seminar in Political Philosophy (3)

Special subject offering, as announced from time to time in semester class schedules. *Prerequisite:* permission.

53.705 General Symposium in Political Philosophy (3)

A synthesizing seminar for those who take Political Philosophy as a comprehensive field. This will be taken to satisfy requirements for research and general seminars under previous patterns of graduate degree program requirements. *Prerequisite:* permission.

POLITICAL SCIENCE RESEARCH

53.610 Research for Management (3)

A requirement for all MPA students entering in September 1971 and after. This course may be used by MA students who are continuing under previous program patterns and who have not yet taken *Theory and Method of Political Science Research I*. Philosophical concepts, approaches, and methodologies of social science research as applicable in political science and public administration. Problems of interdisciplinary research. *Prerequisite:* graduate standing.

53.611 The Conduct of Political Inquiry and Research I (6)

This six-hour course or full equivalent is required of all students entering MA or Ph.D. programs in SGPA in September 1971 or thereafter. Concepts, approaches, and methodologies of political science research. Historical, philosophical, and scientific modes of inquiry. The discipline of political science. Philosophy of science and the sociology of knowledge. Research design, theory, and measurement. The application of the computer. Methods and techniques of analysis. *Prerequisite:* graduate standing.

53.613 The Conduct of Political Inquiry and Research II (3)

Formal modeling and theorizing. Sets, counting and probability. Vectors. Economic bases of political behavior. Game theory. This course is required for all Ph.D. students. It is strongly recommended, although not required for MA students. *Prerequisites:* 53.611 or permission of the Associate Dean.

53.614 Quantitative Methods in Political Science (3)

Completion of this course will fulfill the tool requirement in statistics for SGPA Ph.D. candidates. Application of techniques of probability and statistics to measurement of political behavior. On those techniques of particular relevance to political scientists and review of their use in current literature. *Prerequisites:* Graduate standing in SGPA or SIS, and 53.611 (the new course above) or a foundation in basic statistics. Graduate students from other teaching units may be admitted by the Associate Dean if the class has space above SGPA and SIS student requirements.

53.710 Seminar in Political Research (3)

A special subject offering, as announced from time to time in semester class schedules. *Prerequisite:* permission.

Comparative Government and Politics

CROSS-NATIONAL COURSES

53.631 Comparative Politics of Industrial and Post-Industrial Societies (3)

Political change and development in selected industrial societies. Politics of industrialization. Comparative study of national decision-making, emphasizing the socio-economic, cultural, and international context of decision-making. Mass-elite and intra-elite relations. Patterns of cohesion and conflict. *Prerequisites:* graduate standing, and 53.630 or 53.660 (may be taken concurrently).

53.632 Comparative Politics of Agrarian and Industrializing Societies (3)

Comparative theories of social change and development: their measurement in selected countries. Cross-national analysis of political parties, military elites, administrative problems, and urbanization as they affect political change. *Prerequisites:* graduate standing, and 53.630 or 53.660 (may be taken concurrently).

53.633 Comparative Political Parties (3)

Party structures and functioning in competitive and non-competitive systems. Theories of party origin, change and development in industrial and agrarian societies. Comparative political participation. Interrelation of political, cultural, socioeconomic structure, and party functioning. *Prerequisites:* graduate standing, and 53.630 or 53.660 (may be taken concurrently) or equivalent.

53.634 Comparative Bureaucracies (3)

Problems, theories, and trends in comparative administration; study of the conceptual foundations, structural characteristics, and functional performances of administrative establishments in developed and developing nations. *Prerequisites:* graduate standing and (may be taken concurrently) 53.630, 53.660, or 54.600, or equivalents.

53.635 Comparative Interest Groups and Elites (3)

Analysis of interest groups and elites in political participation, decision-making, social mobilization and political change. Interest group-elite interactions in different types of political systems. *Prerequisites:* graduate standing, and 53.630 or 53.660 (may be taken concurrently) or equivalent.

53.730 Seminar in Comparative Politics (3)

A special subject offering, as announced from time to time in semester course schedules. *Prerequisite:* permission.

53.735 General Symposium in Comparative Politics (3)

Synthesizing seminar for those who take this area as comprehensive field. This will be taken to satisfy requirements for research and general seminars under previous patterns of degree program requirements. *Prerequisite:* permission.

REGIONAL AND COUNTRY COURSES

Of these courses, China and Latin America will be scheduled in

1972-73. For those subjects not scheduled, the student may consult the Associate Dean for comparable Consortium courses or for independent study arrangements with an appropriate faculty member.

**53.540 Comparative Politics:
Western Europe (3)**

**53.541 Comparative Politics:
USSR (3)**

**53.542 Comparative Politics:
Middle East (3)**

**53.543 Comparative Politics:
Africa (3)**

**53.544 Comparative Politics:
Communist China (3)**

**53.545 Comparative Politics:
Japan (3)**

**53.546 Comparative Politics:
South Asia (3)**

**53.547 Comparative Politics:
Southeast Asia (3)**

**53.548 Comparative Politics:
Latin America (3)**

**AMERICAN GOVERNMENT
AND POLITICAL BEHAVIOR**

53.651 The Legislative Process (3)

Function of the legislature in the American governmental system; with emphasis on Congress and comparative consideration of the state legislature. Organization and procedures, relationships and interactions with the electorate, and the executive, judicial, administrative, and political establishments. *Prerequisites:* graduate standing and 53.650 or 53.660 (may be taken concurrently) or equivalent.

53.652 The National Executive (3)

Role and organization of the executive branch in the American governmental system, with emphasis on the presidency and comparative consideration of the office of governor. Functioning of the office as chief of state, in its relationships with legislative, political, administrative, and military establishments, and in formation and control of foreign and defense policy. *Prerequisites:* graduate standing and 53.650 or 53.660 (may be taken concurrently) or equivalent.

53.653 American Federalism (3)

Constitutional and functional relations of American federalism. Interrelationships of national, state, and local governments. The concept of federalism in the governmental-economic and other dimensions of American life. Comparative consideration of the role and performance of the states in the American federal system. *Prerequisites:* graduate standing and 53.650 or 53.660 (may be taken concurrently) or equivalent.

**53.654 The Formation of Public
Policy (3)**

Integrative study of policy-making process. Relationship of persons, groups, and governmental and non-governmental institu-

tions in initiation, formulation, and implementation of public policy in the United States. Organization and manipulation of opinion. Theories of policy formation and decision making. Course also serves the comprehensive field in Political Dynamics (53.66). *Prerequisites:* graduate standing. 53.650 or 53.660, or equivalent, required (may be taken concurrently). 53.651 and 53.652 strongly recommended.

**53.750 Seminar in American
Government and Politics (3)**

A special subject offering, as announced from time to time in semester class schedules. *Prerequisite:* permission.

**53.755 General Symposium in
American Government and
Politics (3)**

A synthesizing seminar for those who take this area as a comprehensive field. This will be taken to satisfy requirements for research and general seminars under previous patterns of graduate degree program requirements. *Prerequisite:* permission.

POLITICAL BEHAVIOR

**53.660 Political Institutions
and Behavior (3)**

Intensive analysis of basic political concepts, institutions, and processes. Political philosophy and its expression in contemporary political systems. Social, economic, and psychological bases of political activity. Primarily descriptive with an American focus, but using comparative materials as well. Replaces the previous 53.650 *Graduate Survey of American Government* as a future requirement in SGPA MA and MPA programs. Recommended for non-SGPA graduate students who are interested in political science. *Prerequisite:* graduate standing.

**53.661 American Political
Behavior (3)**

Nature and roles of public opinion, interest groups, and political parties in the United States. Organization, functions, and techniques. *Prerequisites:* graduate standing and 53.650 or 53.660 (may be taken concurrently), or equivalent.

**53.662 Theories and Concepts
of Political Behavior (3)**

Theories such as power, leadership, decision-making, communication, and socialization. Concept formation, quantitative evidence, and problems of field research. *Prerequisites:* graduate standing, and 53.630, 53.650, or 53.660 (may be taken concurrently), or equivalent.

**53.760 Seminar in Political
Behavior (3)**

A special subject offering, as announced from time to time in semester class schedules. *Prerequisite:* permission.

PUBLIC LAW

**53.670 Judicial Process and
Policy-Making (3)**

Basic concepts of jurisprudence; study of the American legal system; analysis of federal, state, and local judicial processes and decision-making; actors and their roles in judicial process. Source materials and research in public law. *Prerequisites:* graduate standing, and 53.650 or 53.660, or equivalent (may be taken concurrently).

53.672 Law of the Administrative Process (3)

Importance of legislative drafting in delegation of administrative power; nature and extent of administrative discretion; types of governmental agencies exercising administrative powers; legislative and executive controls over administrative action; types of administrative action and enforcement. Rulemaking; licensing; adjudication. Judicial review of administrative action. Practices, problems, and issues in implementation and effectuation of public policy. *Prerequisites:* graduate standing, and 53.650 or 53.660, or equivalent (may be taken concurrently).

53.674 Constitutional Law and Politics (3)

Role of courts in American society with respect to such questions as legitimacy, conflict resolution, and representation. Study of courts as political institutions, as reflected in evolution of doctrine with respect to federalism, powers and limitations on government, and advancement of individual and group interests and rights. *Prerequisite:* graduate standing and at least 3 hours of constitutional law.

53.676 Urban Justice (3)

Intensive study of urban court systems, their actors and processes. Problems of law enforcement and the correctional system. Impact of the courts on resolution of urban problems, such as housing, welfare, and education. *Prerequisites:* graduate standing, and 53.650 or 53.660, or equivalent (may be taken concurrently).

53.678 Comparative Public Law and Policy (3)

Anthropological, philosophical, historical, and behavioral approaches to the study of public law and conflict resolution. *Prerequisite:* graduate standing and 53.650 or 53.660 (may be taken concurrently) or equivalent.

53.770 Seminar in Public Law (3)

A special subject offering, as announced from time to time in semester course schedules. *Prerequisite:* permission.

53.775 General Symposium in Public Law (3)

A synthesizing seminar for those who take this area as a comprehensive field. This will be used to satisfy requirements for research and general seminars under previous degree program patterns. *Prerequisite:* permission.

Public Policy and Administration

SCIENCE, TECHNOLOGY, AND GOVERNMENT

54.660 Science and the State (3)

Contemporary impacts of science and technology and their political implications, primarily in the United States. Relationships of science, scientists, and government. Ways in which science and science-based technology have modified old and created new patterns of political organization and activity. Use of scientific decision-making techniques and increasing reliance on technical experts. Socio-political consequences of major public policy issues with large scientific components. *Prerequisite:* graduate standing.

54.661 The Public Management of Science (3)

Major organizational issues in federal government's support and use of science and technology. Problems of organizational

competition, planning, and coordination, and political-economic implications of governmental management and support for research. *Prerequisite:* graduate standing and 54.660.

54.663 Science, Technology, and International Affairs (3)

Effects of science and technology on territorial state system, including changes in instruments of international conduct, such as diplomacy, international organization, and war. Study of scientific components of foreign policy formation, including scientific bases of foreign policy issues, patterns of international scientific cooperation, and role of scientist in foreign policy process. *Prerequisite:* graduate standing and 54.660 or permission.

54.760 Seminar in Science, Technology, and Government (3)

A special subject offering, as announced from time to time in semester course schedules. *Prerequisite:* permission.

54.765 General Symposium in Science, Technology, and Government (3)

General synthesizing seminar for those who take this subject as a comprehensive field. This is to be used to satisfy research and general seminar requirements under previous patterns of degree program requirements. *Prerequisite:* permission.

GOVERNMENT AND PUBLIC POLICY

54.670 American Public Policy (3)

Concepts of role of government in planning, regulation, promotion, and redistribution of benefits and burdens, and of responsibilities of government for education, socialization, and control of individual and group conduct. Concepts of limitation of scope of public policy as embodied in American history and traditions of individual, civil, economic, and social rights. Introduction to public policy analysis. *Prerequisite:* graduate standing.

54.671 Policy Analysis and Evaluation (3)

Development of intellectual framework and methods for analysis and evaluation of policy and policy structures. Includes definition of problems and objectives; generation and comparison of policy alternatives; models of policy making, etc. *Prerequisites:* Graduate standing and 54.670, or permission.

54.672 Comparative Public Policy (3)

Patterns of public policy in selected industrialized, agricultural, and transitional nations. Methodologies for comparative study of public policy. Approaches to a theory of explanation of policy differences. *Prerequisite:* graduate standing and 54.670.

54.675 Federal Fiscal Policy (3)

National significance and effect of federal budget in economy. Consideration of national income level, tax structure, and large expenditure areas as they bear on economic decision-making and actions of federal budget administration. Actors and agencies involved in federal policymaking—the Executive, the Federal Reserve Board, the Congress. *Prerequisite:* graduate standing, a course in economics, and 53.650 or 53.660 or equivalent.

54.676 Intergovernmental Fiscal Policy (3)

Interrelationships of federal, state, and local governmental bud-

getary and financial policy and administration. Functions of budgetary and financial administration considered from perspective of administrator in state and local levels of American government. *Prerequisite:* graduate standing and 54.680, 54.600, or 54.610.

54.770 Seminar in Government and Public Policy (3)

A special subject offering, as announced from time to time in semester course schedules. *Prerequisite:* permission.

54.775 General Symposium in Government and Public Policy (3)

General synthesizing seminar for those who take this subject as a comprehensive field. This is to be used to satisfy research and general seminar requirements under previous patterns of degree program requirements. *Prerequisite:* permission.

URBAN AFFAIRS

54.680 The Urban Polity (3)

Theory and evolution of role of city in American political life. Relationship of total political system to structural, social, economic, and administrative organization of cities and metropolitan areas. Emphasis on intergovernmental relations, planning, urban violence, and financial resources or urban polity. *Prerequisite:* graduate standing, and 53.650 or 53.660 (may be taken concurrently) or equivalent.

54.681 Metropolitan Analysis (3)

Interdisciplinary course in development of new approaches and methods for analyzing policy decisions in metropolitan areas. Focuses on theoretical and empirical applications of social science to urban public policy. Advanced reading in several disciplines. *Prerequisite:* graduate standing and 54.680.

54.682 Urban Politics (3)

Focuses on community power and decision-making, political leadership, and political actors. Relationship of citizens to their government: urban bureaucracy, citizen participation, and delivery of services. Selected urban problems are analyzed by student panels. *Prerequisite:* graduate standing and 54.680.

54.684 Urban Planning (3)

Selective special emphases in the politics and technical problems of urban planning: Comprehensive land planning, social and economic planning, transportation, renewal, rehabilitation and housing, open spaces, recreation, civic design, capital budgeting, zoning and other means of regulation and execution of plans. Special emphasis on political and intergovernmental context of planning and development functions and decisions. Field research. Case studies. *Prerequisites:* graduate standing and 54.680.

54.780 Seminar in Urban Affairs (3)

A special subject offering, as announced from time to time in semester course schedules. *Prerequisite:* permission.

54.785 General Symposium in Urban Affairs (3)

General synthesizing seminar in Urban Affairs for those who take this subject as a comprehensive field. This is used to satisfy requirements for research and general seminars under previous patterns of degree program requirements. *Prerequisite:* permission.

ORGANIZATIONAL THEORY AND BEHAVIOR

54.600 The Administrative State (6)

Double team-taught course, required of all graduate students in program options of public administration, public policy, or urban affairs. Public bureaucracy as a social institution, and its management as a social function. Ecology of public bureaucracies, their institutional-structural characteristics, behavioral patterns, administrative processes, and policy outputs. *Prerequisites:* graduate standing, and 53.650 or 53.660 (may be taken concurrently), or equivalents.

54.601 The Development of Organizational Thought (3)

General historical context and the normative assumptions of key theorists. Relationship of organizational thought to general stream of political thought. *Prerequisite:* graduate standing and 54.600.

(53.634) (Comparative Bureaucracies) (3)

See Comparative Government and Politics for description of this course, which is also an integral part of this group.

54.603 The Individual and the Organization (3)

Social psychology of the organization; motivation, leadership, and revitalization of organizational personnel; theories of personal motivation (Theory X and Y: Argyris, Likert, Katz, and Kahn). *Prerequisite:* graduate standing and 54.600.

54.700 Seminar in Organizational Theory and Behavior (3)

A special subject offering, as announced from time to time in semester class schedules. *Prerequisite:* permission.

54.705 General Symposium in Organizational Theory and Behavior (3)

General synthesizing seminar for those who take this subject as a comprehensive field. This is to be used to satisfy requirements for research and general seminars under previous degree program patterns.

GOVERNMENTAL MANAGEMENT

54.511 Applied Administrative Management (3)

A special purpose course arranged and available only for specially organized groups of foreign participants. This course does not apply in any SGPA graduate degree program.

54.610 Public Management (3)

Systematic study of management process in governmental agencies: Theory and practice in establishing, maintaining, and vitalizing working organizations and in directing, coordinating, and controlling programs and activities undertaken to accomplish missions and commitments. Problems of hierarchical structure and headquarters-field relationships. *Prerequisites:* graduate standing and 53.650 or 53.660.

54.611 Public Management and Public Policy (3)

Nature and approach of "management science." Facts and methods of "hard management and decision-making" in the public sector. Application of systems perspective and quantitative

tive instruments in definition of public policy objectives, and in the creation, operation, and evaluation of organizational systems. Interplay of normative management with practice in context of the socio/economic political issues which face governments in the United States in the 1970's. *Prerequisite:* graduate standing and 54.600 or 54.610.

54.614 Public Personnel (3)

Administrative and managerial responsibilities and relationships in finding, utilizing, and developing personnel in public agencies. Special emphasis on spread of labor-management agreements as instruments of decision and administration in public sector. Principles and processes of public personnel programs, especially federal: design, classification, and management of the position structure; appraisal of employee performance; grievance and appeal systems; problems of motivation and morale of the work force. *Prerequisite:* graduate standing, and 54.600 or 54.610 or permission.

54.615 Manpower Planning and Utilization (3)

Problems of national and governmental manpower supply and demand. Comparative study of military and non-military policies and practices in planning personnel requirements of the administrative agency. Comparison of governmental and non-governmental practice. Creation of supply to fulfill demand: job redesign; training and retraining; centralization and services; incentives. *Prerequisite:* graduate standing and 54.600 or 54.610 or 54.614.

54.616 Labor Relations in Public Employment (3)

Rapidly changing patterns of relationships among public employees, public employees, and organizations of public employees. Methods and implications of collective bargaining in the public sector. *Prerequisite:* graduate standing and 54.600, 54.610, or 54.614.

54.618 Governmental Budgeting (3)

Processes and instruments of planning, programming, and budgeting in public managerial establishment. This course will not be offered in 1972-73. SGPA students who want this subject are urged to take SBA 10.657: *Management Planning and Control* (3) if they can meet prerequisite requirements, or comparable courses in curriculum of the GWU School of Government and Business Administration.

54.710 Seminar in Governmental Management (3)

A special subject offering, as announced from time to time in semester course schedules. *Prerequisite:* permission.

54.715 General Symposium in Governmental Management (3)

General synthesizing seminar for those who take this area as a comprehensive field. *Prerequisite:* permission.

SPECIAL COURSES AND INTERNSHIPS

INTER-COLLEGE PROGRAMS

56.610 The Washington Graduate Year: Cooperative Graduate Study Supervision

(Credit as determined by arrangements with formally cooperating Institutions.)

The American University offers to other U.S. colleges and universities who wish to enter mutually satisfactory arrangements for the purpose, to stand *in loco academic parentis* in the provision of academic counseling and guidance in course work for their graduate students who may need to carry on graduate study or dissertational research in Washington, D.C. This possibility must be limited to those students whose interests lie within one of the major curricular areas of this school, as described in the preceding pages of this catalog.

COMPARATIVE GOVERNMENT WORKSHOPS ABROAD

56.520 Summer Traveling Seminar (3-6)

Approximately 45-60 days.

56.521 In-Year Traveling Seminar (3-6)

One semester.

Field study of the governments of Europe or other areas of the world as announced, under the direction of a senior member of the faculty of this school. (Send for brochure.)

FIELD STUDY PROGRAMS IN AMERICAN GOVERNMENT

56.530 Washington Semester Summer Seminar (6)

A concentrated version of the special features of the Washington Semester Program which The American University offers for cooperating schools during the regular academic year. Supervised field study of the U.S. government, through seminars and conferences with public officials, with interpretation and synthesis in seminars conducted by the directing school faculty member. Will require student time of five full days per week for one five-week summer session. While post-graduate students are eligible, this course will not normally apply toward SGPA graduate program requirements. *Prerequisite:* permission, after advisory consultation or correspondence. The student should have the background of at least one graduate course in American government.

56.531 Urban Affairs Laboratory (6)

Intensive field study of urban affairs and the federal-urban relation in the Washington, D.C. setting. Laboratory focus on selected special topics which vary from term to term, with seminar meetings and conferences with representatives of governmental and private agencies concerned with the topic selected. Students assigned extensive readings and special problems for personal investigation. The whole will be tied together with interpretive sessions with the supervising faculty member. *Prerequisite:* permission.

56.630 Graduate Internships in National, State, and Local Government, or in a Research Organization (6)

Arrangements for scheduled work assignments in participation, observation, and research, and seminar integration under cooperative supervision of a government official or a research director and a member of the school faculty.

**THE TEACHING OF POLITICS
AND GOVERNMENT**

**56.740 Colloquium on the Teaching
of Politics and Government
(3)**

A very informal association of groups of faculty members with those students who intend the college level of teaching as a career, to convey perspectives and experience, and to guide the participating students in systematic preparation. *Prerequisites:* graduate standing and permission.

**READING, RESEARCH AND
TUTORIAL** (See p. 32.)

**56.590 Readings in Government
(1-6)**

As arranged with advisor and supervising faculty member.

**56.690 Independent Project in
Government (1-6)**

As arranged with advisor and supervising faculty member. For students who have been advanced to candidacy for the master's or Ph.D. degrees, such a research project may be developed as a comprehensive case study in politics, government, administration, or the technology of management, for credit up to 6 hours.

**56.695 Tutorial Seminar for
Foreign Graduate Students
(No Credit)**

The vehicle for registration by foreign graduate students who require it for special assistance in their intercultural academic problems. Cost of registration determined on a special fee basis, ranging from \$200 to \$500 per semester depending on the extent and character of the assistance required.

**56.797 Master's Thesis Seminar in
Politics and Government or
Public Administration (6)**

**56.799 Doctoral Dissertation
Seminar in Politics and
Government or Public
Administration (6-12)**

History

Undergraduate Courses

(See also *Interdisciplinary Courses*, 75.120-121. Selected Human Problems I-II. An interdisciplinary problem-oriented course involving lectures by representatives of several disciplines and small discussion sections.)

THE AMERICAN UNIVERSITY

**29.191 Freshman Seminar
(Course)**

Readings and research in selected historical topics for first year undergraduates. May be taken twice for credit with departmental permission.

**29.201 The Ancient World: The
Ancient Near East (Course)**

Egypt, Mesopotamia, Crete, Assyria, Persian Empires, Mycenaean Greece.

**29.202 The Ancient World: Greece
(Course)**

**29.203 The Ancient World: Rome
(Course)**

29.204 Medieval Europe (Course)

Topics in medieval political, social, religious and economic history.

**29.205 History of Modern Europe I
(Course)**

Nature, causes, social consequences of the Reformation. Catholic Reformation. Evolution of political ideologies and institutions. Expansion of commerce and the growth of empires. French Revolution and the Age of Napoleon.

**29.206 History of Modern Europe
II (Course)**

Development of European nationalities from 1815 to the present. Age of Metternich, rise of liberalism, industrial revolution, and social, cultural, and economic bases of nationalism and imperialism.

**29.211 History of the United
States I (Course)**

Survey course giving a comprehensive history of our country from colonial times to the Civil War.

**29.212 History of the United
States II (Course)**

Survey course giving a comprehensive history of our country from the Civil War to the present.

**29.241-242 Introduction to
Asian Histories I-II
(Course, Course)**

Fundamental characteristics of four major Asian regions: Japan, China, Southeast Asia, and India. Comparative approach, focusing on problems of concern in historical development of all four regions. Not offered in 1972-73.

**29.291 Sophomore Seminar
(Course)**

Readings and research in selected topics for second year undergraduates. May be taken twice on advice and with departmental permission.

**29.301 History of England I
(Course)**

Political, economic, social, and cultural life in England to 1689.

Origins and development of constitutional government. Beginnings of empire.

29.302 History of England II (Course)

England and the British Empire since 1689. Evolution of constitutional government, expansion of empire, the empire system since World War II.

29.305 History of Latin America I (Course)

Colonization by Spain, Portugal, and France. Causes and developments of independence movements. Political, social, economic and ideological aspects of national developments to 1860.

29.306 History of Latin America II (Course)

Economic nationalism, militarism, and reform movements. Cultural and religious developments since 1860.

29.309 History of Russia I (Course)

Eastern Slavs from the 10th century to the empire of Alexander II. Development of institutions and culture.

29.310 History of Russia II (Course)

Russia encounters industrialization and revolution, from the Emancipation to the Khrushchev era. Emphasis on internal political, socio-economic, and cultural developments.

29.313 History of East Central Europe I (Course)

From the Baltic to the Balkans. Political, economic and intellectual development to the 1870's.

29.314 History of East Central Europe II (Course)

From the Baltic to the Balkans. Political, economic, and intellectual development since the 1870's.

29.317 Social History of the United States I (Course)

Social factors in U.S. History from colonial times to the Civil War. Emphasis upon family, labor, immigration, slavery, religion, the westward movement.

29.318 Social History of the United States II (Course)

Analysis of American society since the Civil War, with special attention to social classes and ethnic groups, industrialism, technology, the social gospel, social welfare, and urban developments.

29.319 Social History of Europe I (Course)

Nineteenth-century Europe in terms of ordinary people; social patterns and protests, life-styles and aspirations from the Industrial Revolution to the First World War.

29.320 Social History of Europe II (Course)

Twentieth-century Europe in terms of ordinary people; social patterns and protests, life-styles and aspirations from the First World War to present.

29.321 The Afro-American in U.S. History (Course)

The experience of Blacks in America from 1619 to the present. Contributions Blacks have made to American society and the effect of White society upon the Blacks. *Suggested prerequisites:* 29.211-212.

29.325 Introduction to African History (Course)

Attempt to assess the historicity of human experience in Saharan Africa and in Africa south of the Sahara. Attention to the development and disruption of Black cultures in Africa.

29.329 Islam in the World (Course)

Historical background of the age of the Prophet; development and expansion of Islamic Civilization from the seventh century to the recent past.

29.334 The City in History I (Course)

Historical development of the city; the place of the city in the history of civilization; the city as a blessing and as a problem.

29.335 The City in History II (Course)

Selected Topics in American urban history.

29.343 Topics in Chinese History (Course)

Lectures, reading, and discussion on selected topics in Chinese history.

29.390 Independent Reading Course in History (Quarter-course to double course)

See page 32.

29.401 Historiography (Course)

Analysis of major historians in United States, Europe and other areas. For history majors with junior or senior standing. Open to non-history majors only with permission of the instructor.

29.480 Senior Seminar: U.S. History (Course)

Introduction to methods and materials in historical research and writing, with special emphasis on resources in the Washington area. Senior standing in department or approval. May not be taken in same semester as practice teaching. For history majors with senior standing. Open to non-history majors only with permission of the instructor.

29.490 Independent Study Project in History (Quarter-course to double course)

See page 32.

Advanced Courses

500-level courses are open to graduate students and advanced undergraduates who have done appropriate background work. Undergraduate students in 500-level courses receive credit for one course.

"Period Studies" and "Topics" courses listed below treat in any given semester of a particular time-span or specialized topic within the general area of the course as listed here. Check semester bulletins.

EUROPE

29.501 Period Studies in Western European History (3)

Readings and lectures in selected periods of modern Western European history. Periods treated on a rotational basis include Renaissance, Reformation, Europe 1914-1939, Europe since 1939, as well as selected periods in 17th, 18th, and 19th-century history.

29.503 Period Studies in French History (3)

Readings and lectures on selected periods of French history.

29.505 Period Studies in German History (3)

Readings and lectures on selected periods of German History, including the period from Bismarck to Adenauer.

29.507 Period Studies in Russian and East European History (3)

Readings and lectures on selected periods and areas of Russian and East European history.

29.509 Period Studies in British History (3)

Readings and lectures on selected periods of British colonial and imperial history.

29.521 Topics in Early Modern European History (3)

Lectures and readings on selected topics in early modern European history.

29.522 Topics in Modern European History (3)

Lectures and readings on selected topics in modern and recent European history.

29.525 Topics in Early Modern British History (3)

Lectures and readings on selected topics in early modern British history.

29.526 Topics in Modern British History (3)

Lectures and readings on selected topics in modern and recent British history.

29.529 Topics in Early Russian and East European History (3)

Lectures and readings on selected topics in early Russian and East European history.

29.530 Topics in Modern Russian and East European History (3)

Lectures and readings on selected topics in modern and recent Russian and East European history.

29.551 Intellectual History of Europe I (3)

Ideas and outlooks that have influenced the development of Western history from the 13th to the 17th century.

29.552 Intellectual History of Europe II (3)

Scientific revolution, enlightenment and romanticism; late 17th century, 18th, and early 19th-century thought.

29.553 Intellectual History of Europe III (3)

European thought in the transition of the machine age from the young Hegelians to the Existentialists.

29.569 Diplomatic History of Europe: 1789-1871 (3)

Wars of the French Revolution and Napoleon; the Metternich Era; the revolutions of 1848-49; the unification of Italy and of Germany.

29.570 Diplomatic History of Europe: 1871-1939 (3)

Era of Bismarck; formation of alliances and counter-alliances; diplomacy of colonial imperialism; First World War and the Versailles settlements; the totalitarian threat to the balance of power.

UNITED STATES

29.511 Period Studies in U.S. History (3)

Readings and lectures in selected periods of U.S. History, including colonial.

29.531 Topics in Early U.S. History (3)

Lectures and readings on selected topics in early U.S. History.

29.532 Topics in Recent U.S. History (3)

Lectures and readings on selected topics in recent U.S. history.

29.555 Intellectual History of the U.S. I (3)

Ideas and attitudes of the American people and their leaders from colonial times to the Civil War. Puritanism, the enlightenment, transcendentalism, democracy, and nationalism.

29.556 Intellectual History of the U.S. II (3)

Dominant patterns of American thought from the Civil War to the present. Impact of Darwinian evolution, industrialism, the vanishing frontier, progressive democracy, imperialism, and war.

29.565 Economic History of the U.S. I (3)

American economic development from the colonial beginnings to the mid-19th century.

29.566 Economic History of the U.S. II (3)

American economic development during the past one hundred years.

29.573 History of U.S. Foreign Policy: 1776-1900 (3)

Historical treatment and critical analysis of American foreign policy from the beginning to the end of the 19th century.

29.574 History of U.S. Foreign Policy: 1900 to the Present (3)

Growing role of the U.S. in world affairs.

LATIN AMERICA**29.513 Period Studies in Latin American History (3)**

Readings and lectures on selected periods and areas of Latin American history.

29.537 Topics in Early Latin American History (3)

Lectures and readings on selected topics in early Latin American history.

29.538 Topics in Recent Latin American History (3)

Lectures and readings on selected topics in recent Latin American history.

29.559 Latin American Intellectual History (3)

Spanish and Portuguese backgrounds. Ideas of the Independence leaders. Mid-century liberalism and romanticism. Positivist thought. Contemporary trends.

29.577 Diplomatic History of Latin America (3)

History of the relations of the nations with each other, with nations of Europe, and with the United States, since independence. Principal attention to Argentina, Brazil, Chile, Mexico, Peru, Colombia, and Venezuela.

ASIA, AFRICA, COMPARATIVE HISTORY, IMPERIALISM**29.541 Topics in the History of Expansion and Imperialism (3)**

Lectures and readings on selected aspects of the history of expansion and imperialism.

29.545 Topics in Early Asian Histories (3)

Lectures and readings on selected topics in the earlier period of Asian histories.

29.546 Topics in Modern Asian Histories (3)

Lectures and readings on selected topics in the more recent period of Asian histories.

29.549 Topics in Comparative History (3)

Lectures and readings on selected topics in comparative history.

ARCHIVES**29.581 History of Archival Administration (3)**

The nature of archives and concepts of archival administration. Comparative survey of the history and present practice in the principal countries of the world, with special emphasis on the U.S.

29.582 Administration of Modern Archives (3)

Nature, value, and use of public and private archives. Principles and techniques for appraisal, preservation, arrangement, description and reference service for archives, personal papers, and historical manuscripts. Survey of American archival agencies.

INDEPENDENT READINGS AND RESEARCH**29.590 Independent Reading Course in History (1-6)**

See page 32.

29.690 Independent Study Project in History (1-6)

See page 32.

GRADUATE COLLOQUIA**29.620 Colloquium in European History: 1500-1799 (3)****29.621 Colloquium in European History Since 1799 (3)****29.625 Colloquium in British History to 1689 (3)****29.626 Colloquium in British History Since 1689 (3)****29.630 Colloquium in U.S. History to 1865 (3)**

29.631 Colloquium in U.S. History Since 1865 (3)

29.670 Colloquium in Latin American History to 1860 (3)

29.671 Colloquium in Latin American History since 1860 (3)

GRADUATE SEMINARS

29.710 Research Seminar in European History (3)

29.715 Research Seminar in British History (3)

29.740 Research Seminar in the History of the U.S. (3)

29.750 Research Seminar in the History of Latin America (3)

29.770 Research Seminar in Archives Administration (3)

29.797 Master's Thesis Seminar (3-6)

29.799 Doctoral Dissertation Seminar (3-12)

SUMMER INSTITUTE

31.540 Institute of Archives Administration (3)

Institutes

The American University pioneered in developing these specially designed University-level programs for further professional growth of men and women already basically educated by experience and previous education who wish to systematize and increase their knowledge, keep current, and be better prepared for tomorrow's developments.

This continuing education for practitioners has attracted registrants from all parts of the U.S. and from many foreign countries. Curricula for the management development programs are generally planned with the active cooperation of the profession or industry concerned. Institutes usually provide intensive instruction in a concentrated period of time to minimize leave from regular duties.

Where academic credit is available, the number of hours is indicated.

BUSINESS ADMINISTRATION

31.008 Institute on Tax Planning in Real Estate (No Credit)

Impact of federal income and other taxes on real estate operations, presented in simplest possible terms and directed toward needs of real estate dealers, investors, financial institutions and government agencies dealing with real estate operations.

31.020 Annual Physical Distribution Institute (No Credit)

Management development program for present and prospective traffic executives. Role of traffic management in sales, purchasing, market development. Effective organization, operation of traffic department. Developments in carrier facilities, rates, regulation.

31.021 Annual Air Transport Management Institute (No Credit)

Intensive study of trends, problems of commercial, military air transport.

31.022 Annual Railroad Management Institute (No Credit)

Management information systems; marketing rail service; finance planning; automation and labor problems; cooperation of government and carriers in high-speed passenger operations.

31.025 International Transportation Institute (No Credit)

Efficient shipping management; finance; administration; merchant marine policy. Foreign trade developments and opportunities for American shipping. For executives programming, directing operations.

31.026 Small Shipments Conference (No Credit)

Transportation of small shipments. Problems affecting carriers, shippers, and the general public. Improving efficiency and reducing cost.

INSTITUTES IN INSURANCE

31.075 CPCU Insurance Institute (No Credit)

31.076 Insurance Claims Adjusters Institute (No Credit)

31.077 CLU Insurance Institute (No Credit)

31.078 LUTC Insurance Institute (No Credit)

31.079 General Insurance (No Credit)

Interdisciplinary Courses

75.120-121 Selected Human Problems (Course)

For description see History Department listing.

75.200-201 American Civilization I & II (Course, Course)**75.489 American Studies Senior Essay (Course)**

For description see American Studies listing.

75.491 American Studies Senior Seminar (Course)

For description see American Studies listing.

75.500 Folger Seminar in Renaissance and Eighteenth-Century Studies (3)

Each semester three seminars are offered. Graduate students who wish to participate should consult the Department of Literature, Graduate Advisor. Topics for 1972-73 are to be announced.

75.506-m Development of Scientific Thought I (3)**75.507-m Development of Scientific Thought II (1)****75.523 Colloquium on France: After De Gaulle (3)****75.533 Colloquium on Germany: Foreign Policy of the Federal Republic (3)****75.543 Colloquium on the Soviet Union (3)****75.553 Colloquium on Latin America (3)****75.572 History of the International Labor Movement (3)**

International Service

UNDERGRADUATE CURRICULUM

Undergraduates enrolled in .500 level courses receive one course unit.

FOUNDATION COURSES**33.100 Approaches to International Studies (quarter-course)**

An introduction to the central issues and viewpoints in the field of international studies. (Restricted to SIS freshmen and transfer students.)

33.101 Introduction to Political Concepts (Course)

Examination of concepts such as politics, power, authority, the state, nationalism, and legitimacy, as well as their applicability in international and comparative politics and in policy analysis. (Restricted to SIS students.)

33.151 Introduction to Western .152 Tradition I, II (Course, Course)

Basic introduction to Western European intellectual history; frame of reference for later studies of dynamics of modernization and transition from traditional to secular society. (Restricted to SIS students.)

19.100 Introduction to Economics (Course) (See Economics)**33.200 Contemporary International Politics: Selected Topics (Half or one course)**

An analysis of a specific international problem, crisis or issue of contemporary concern. May be repeated for credit if topics differ.

33.201 Introduction to International Politics (Course)

Analysis of international relations as a political process, with emphasis upon patterns of conflict and cooperation.

33.301 Theories of International Politics (Course)

Major trends in international relations theory; analysis, explanation, and theory building in international relations. *Prerequisite:* 33.201.

33.307 Quantitative Approaches to International Politics (Course)

Uses of quantitative modes of analysis in understanding inter-

national politics at systemic, national, and decision-maker levels. *Prerequisite:* 33.201.

33.321 International Law (Course)

Analysis of institutionalized modes of international politics, with emphasis upon the nature and function of international law. *Prerequisite:* 33.201.

33.325 International Organization (Course)

Analysis of institutionalized modes of international politics, with emphasis upon the nature and functions of international organization. *Prerequisite:* 33.201.

33.351 Foundations of International Communication (Course)

Concepts, theories and problems of international communication in terms of individual and group behavior as presented in social and behavioral sciences. *Prerequisite:* 33.201.

33.553 Psychological and Cultural Bases of International Politics (3)

Phenomena and problems of international political behavior in terms of underlying psychological and cultural forces. Theory of international politics from behavioral science points of view. *Prerequisite:* 33.351.

33.361 Foreign Policies of the Great Powers (Course)

Analysis of the interaction of the United States and the U.S.S.R., with emphasis on period since World War II. Includes consideration of the role of China in the relations between the superpowers. *Prerequisite:* 33.201.

33.370 International Relations of Western Europe (Course)

Analysis of recent and contemporary interstate relations in Western Europe and place of Western Europe in world affairs. *Prerequisite:* 33.201.

33.371 Soviet Russia in World Affairs (Course)

Analysis of recent and contemporary interstate relations in the zone of Soviet influence and place of the U.S.S.R. in world affairs. *Prerequisite:* 33.201.

33.562 International Relations of the Middle East I and II (3)

Analysis of recent and contemporary interstate relations in the Middle East, and place of the Middle East in world affairs. *Prerequisite:* 33.201.

33.563 International Relations of Africa I and II (3)

Analysis of recent and contemporary interstate relations in Africa, and place of Africa in world affairs. *Prerequisite:* 33.201.

33.564 International Relations of East Asia I and II (3)

Analysis of recent and contemporary interstate relations in East Asia, and place of East Asia in world affairs. *Prerequisite:* 33.201.

33.576 International Relations of South Asia (3)

Analysis of recent and contemporary interstate relations in

South Asia, and place of South Asia in world affairs. *Prerequisite:* 33.201.

33.577 International Relations of Southeast Asia (3)

Analysis of recent and contemporary interstate relations in Southeast Asia, and place of Southeast Asia in world affairs. *Prerequisite:* 33.201.

33.578 International Relations of Latin America (3)

Analysis of recent and contemporary interstate relations in Latin America and place of Latin America in world affairs. *Prerequisite:* 33.201.

33.400 Special Topics in International Politics (Course)

Selected topics in international politics, including conflict, integration, war, alliances, diplomacy. *Prerequisite:* 33.201 and permission.

33.409 Seminar in International Politics (Course)

Research Seminar on selected topics in international relations. *Prerequisite:* 33.201, and permission.

33.420 Selected Topics in International Law and Organization (Course)

Selected topics in international law and organization, stressing the linkage between the two fields. *Prerequisite:* 33.321, or 33.323, depending on the topics to be considered.

33.450 Selected Topics in International Communications (Course)

Detailed consideration of special topics within the general field of communications. *Prerequisite:* 33.351.

19.311 International Economics (Course)

19.551 International Economic Theory (3)

19.558 Current International Economic Problems (3)

29.541 Topics in the History of Expansion and Imperialism (3)

29.569 Diplomatic History of Europe I: 1789-1871 (3)

29.570 Diplomatic History of Europe II: 1871-1939 (3)

29.573 History of U.S. Foreign Policy I: 1776-1900 (3)

29.574 History of U.S. Foreign Policy II: 1900 to the Present (3)

29.577 Diplomatic History of Latin America (3)

FOREIGN AREA AND CROSS-NATIONAL STUDIES

33.241 Introduction to Russia (Course)

An introductory analysis of history, geography, society, economics, and politics.

33.242 Introduction to the Middle East (Course)

An introductory analysis of history, geography, society, economics, and politics.

33.243 Introduction to Africa (Course)

An introductory analysis of history, geography, society, economics, and politics.

33.244 Introduction to East Asia (Course)

An introductory analysis of history, geography, society, economics, and politics.

33.246 Introduction to the Indian Subcontinent (Course)

An introductory analysis of history, geography, society, economics, and politics.

33.247 Introduction to South East Asia (Course)

An introductory analysis of history, geography, society, economics, and politics.

33.248 Introduction to Latin America (Course)

An introductory analysis of history, geography, society, economics and politics.

33.440 Interdisciplinary Area Seminar: Western Europe (Course)

Problem-oriented, interdisciplinary course. *Prerequisite:* Minimum of two courses on Western Europe.

33.441 Interdisciplinary Area Seminar: U.S.S.R. (Course)

Problem-oriented, interdisciplinary course. *Prerequisite:* Minimum of two courses on the U.S.S.R.

33.442 Interdisciplinary Area Seminar: Middle East (Course)

Problem-oriented, interdisciplinary course. *Prerequisite:* Minimum of two courses on the Middle East.

33.443 Interdisciplinary Area Seminar: Africa (Course)

Problem-oriented, interdisciplinary course. *Prerequisite:* Minimum of two courses on Africa.

33.444 Interdisciplinary Area Seminar: East Asia (Course)

Problem-oriented, interdisciplinary course. *Prerequisite:* Minimum of two courses on East Asia.

33.446 Interdisciplinary Area Seminar: South Asia (Course)

Problem-oriented, interdisciplinary course. *Prerequisite:* Minimum of two courses on South Asia.

33.447 Interdisciplinary Area Seminar: South East Asia (Course)

Problem-oriented, interdisciplinary course. *Prerequisite:* Minimum of two courses on Southeast Asia.

33.448 Interdisciplinary Area Seminar: Latin America (Course)

Problem-oriented, interdisciplinary course. *Prerequisite:* minimum of two courses on Latin America.

33.449 Interdisciplinary Area Seminar: Selected Topics (Course)

Problem-oriented, interdisciplinary course with focus on one specific issue common to several regions of the world. Usually team taught. *Prerequisite:* permission.

03.201 Introduction to Cultural Anthropology (Course)

03.335 Ethnographic Survey (Course)

03.336 Social Structure (Course)

03.430 Religion in Culture (Course)

03.432 Culture Change (Course)

03.434 Community Studies (Course)

03.537 Language in Culture (3)

03.538 Systemic Analysis: Topics will be rotated (3)

03.539 Ethnology (3)

03.543 Analytical Methods: Topics will alternate (3)

03.544 Applied Anthropology (3)

19.302 Alternative Economic Theories and Institutions (Course)

19.307	Economic Development (Course)	53.546	Comparative Politics: South Asia
19.308	History of Economic Development (Course)	53.547	Comparative Politics: Southeast Asia
19.318	Asian Economic Problems (Course)	53.548	Comparative Politics: Latin America
19.508	European Economic Development (3)	53.549	Comparative Politics: Israel
19.512	Theory of Comparative Economic Organization and Institutions (3)	29.205	History of Modern Europe (Course)
19.552	Structure and Operation of the Soviet Economy (3)	29.206	History of Modern Europe II (Course)
19.553	Economic Problems of Southern Asia: Survey (3)	29.241	Introduction to Asian Histories I (Course)
19.554	Economic Problems of Southern Asia: Indonesia, Malaysia, Singapore (3)	29.242	Introduction to Asian Histories II (Course)
19.555	Economic Problems of Latin America (3)	29.301	History of England I (Course)
19.559	Patterns and Problems of Economic Development in Asia (3)	29.302	History of England II (Course)
53.330	Comparative Politics of Industrial Societies (Course)	20.305	History of Latin America to 1860 (Course)
53.331	Comparative Politics of Agrarian and Industrializing Societies (Course)	29.306	Latin America Since 1860 (Course)
53.430-9	Topics in Comparative Politics	29.309	History of Russia I (Course)
53.540	Comparative Politics: Western Europe	29.310	History of Russia II (Course)
53.541	Comparative Politics: USSR	29.313	History of East Central Europe I (Course)
53.542	Comparative Politics: Middle East	29.314	History of East Central Europe II (Course)
53.543	Comparative Politics: Africa	29.319	Social History of Europe I (Course)
53.544	Comparative Politics: Communist China	29.320	Social History of Europe II (Course)
53.545	Comparative Politics: Japan	29.325	Introduction to African History (Course)
		29.329	Islam in the World (Course)
		29.343	Topics in Chinese History (Course)

- 29.501 Period Studies in Western European History (3)**
- 29.503 Period Studies in French History (3)**
- 29.505 Period Studies in German History (3)**
- 29.507 Period Studies in Russian and East European History (3)**
- 29.509 Period Studies in British History (3)**
- 29.513 Period Studies in Latin American History (3)**
- 29.521 Topics in Western European History I (3)**
- 29.522 Topics in Western European History II (3)**
- 29.525 Topics in British History I (3)**
- 29.526 Topics in British History II (3)**
- 29.529 Topics in Russian and East European History I (3)**
- 29.530 Topics in Russian and East European History II (3)**
- 29.537 Topics in Latin American History I (3)**
- 29.538 Topics in Latin American History II (3)**
- 29.541 Topics in the History of Expansion and Imperialism (3)**
- 29.545 Topics in Asian Histories I (3)**
- 29.546 Topics in Asian Histories II (3)**
- 29.549 Topics in Comparative History (3)**
- 29.551 Intellectual History of Europe I (3)**
- 29.552 Intellectual History of Europe II (3)**

- 29.553 Intellectual History of Europe III (3)**
- 29.559 Latin American Intellectual History (3)**

POLICY ANALYSIS

33.281 Introduction to Policy Analysis (Course)

Public policy formation and implementation, with attention to analysis, evaluation and forecasting in such policy areas as diplomacy, security, welfare, health, education, environment, and finance. Major focus on the United States, with some comparative dimension.

33.381 United States Foreign Policy (Course)

Analysis of American foreign policy; the diplomatic process, including the role of President, Congress, Department of State, and other agencies in foreign policy making. *Prerequisite:* 33.281, or a course in American government or public policy (53.321, 53.322, 53.340).

33.383 National Security Policy (Course)

National security policy formulation, including role of the intelligence community, military-industrial relations and legislative-executive interaction. Analysis of role of force in international relations, including approaches to arms control, deterrence theory and insurgency. *Prerequisite:* 33.281, or a course in American government or public policy (53.321, 53.322, 53.340).

33.385 Comparative Foreign Policy Formulation and Analysis (Course)

Policy formation and implementation of selected nation-states, treated comparatively. Analysis of the impact of foreign policies of selected countries on development, international stability, and the environment. *Prerequisite:* 33.281, or a course in American government or public policy (53.321, 53.322, 53.340).

33.480 Special Topics in Policy Analysis (Course)

Analysis of selected topics in public policy, with special attention to diplomatic, security, economic, or environmental policies. *Prerequisite:* 33.281, or a course in American government or public policy (53.321, 53.322, 53.340).

33.489 Seminar in Policy Analysis (Course)

Research seminar on selected topics in policy analysis. *Prerequisite:* 33.281, or a course in American government or public policy (53.321, 53.322, 53.340), and permission.

53.321 Congress and the Presidency (Course)

53.322 Bureaucracy and Administration (Course)

53.340 Government and Public Policy (Course)

53.440 Topics in Public Policy (Course)**19.561 Development Planning (3)****SPECIAL COURSES****33.390 Independent Reading (Quarter to double course)**

As arranged with supervising faculty member and Associate Dean for Undergraduate Studies, SIS.

33.490 Independent Research (Quarter to double course)

As arranged with supervising faculty member and Associate Dean for Undergraduate Studies, SIS.

33.391 Internship in International Affairs (1-4 Courses)

Direct involvement in the policymaking process through participation in a government agency or non-governmental organization. Credit varies depending upon the nature of the internship and the number of hours involved. *Prerequisite:* permission of the Associate Dean for Undergraduate Studies, SIS.

33.393 Special Semester in International Studies (Credit equivalent: four courses)

An integrated analysis of a specific issue or problem in international studies, from the perspective of a variety of disciplines and viewpoints. Instruction is interdisciplinary and team-taught, including workshops and seminars, independent study programs, and utilization of the resources of the city of Washington. Normally considered to constitute a student's full course load for the semester. *Prerequisite:* junior or senior standing, and permission of the instructor.

WASHINGTON INTERNATIONAL SEMESTER**33.491 Seminar: Washington in World Affairs I (Course)**

Observation and study of governmental, international, and private activities that contribute to the United States posture in world affairs.

33.492 Seminar: Washington in World Affairs II (Course)

Observation and study of governmental, international and private activities that contribute to the United States posture in world affairs.

33.493 Washington International Semester Research Project (Course)

Preparation of an individual analytical report under the guidance of the program instructors.

33.494 Washington International Semester Internship (Course)

Participation in an actual work situation concerned with foreign affairs, and approved by the supervising instructor.

Note: Washington International Semester courses are primarily for students who come from other institutions under the arrangements of the Washington Semester Program. Students from the Association of Colleges and Universities for International-Intercultural Studies and selected International Studies majors from The American University are also eligible.

GRADUATE CURRICULUM**GENERAL COURSES****33.527 World Human Needs and International Planning (3)**

Interdisciplinary approach to world human needs; social, economic, political, and moral implications of the growing chasm between rich and poor nations; world population growth, resources, environmental pollution; differences of opportunity for food, health, housing, education, employment, social security, migration, brain-drain; implications of resentment and violence potentials; priority needs; problems and possibilities of international planning.

33.528 World Human Needs and International Administration (3)

Consideration of the problem of international service and development agencies in the field of world human needs, including relief, economic assistance and development. Presentations are made by administrators of public and private international agencies, including Red Cross, religious agencies, United Nations, World Bank, and U.S. Government program administrators, and consideration of other possibilities for meeting future world human needs.

33.538 Twentieth Century Political Ideas and Movements (3)

Theory of mass psychology, crowds, political sects; role of intellectuals including such thinkers as Mosca, Pareto, Le Bon, and Michels; Max Weber's theory of bureaucracy and charisma; communism and French intellectuals; National Socialism as a charismatic-bureaucratic phenomenon. Transition, end of ideology, and changing role of intellectuals in advanced societies.

33.617 Survey Research Methodology (3)

Survey method as a principal tool in comparative politics research; its applicability, strengths, and limitations. Techniques and problems of data collection (research design, quantitative measurement, questionnaire construction, sampling, interviewing); data processing (computer hardware and software); and data analysis (logic of analysis, cross-tabulation, measures of association, causal inference). Experience in use of computer through secondary analysis of existing survey data. Additional time, outside of class, required at Computation Center. *Prerequisite:* 53.611 or equivalent. A basic course in statistics is highly recommended.

33.740 Interdisciplinary Area Seminar: Western Europe (3)

Problem oriented, interdisciplinary course. Normally taken upon completion of other degree course requirements. *Prerequisite:* coursework pertinent to the area in a minimum of two disciplines.

33.741 Interdisciplinary Area Seminar: USSR (3)

Problem oriented, interdisciplinary course. Normally taken

upon completion of other degree course requirements. *Prerequisite:* coursework pertinent to the area in a minimum of two disciplines.

33.744 Interdisciplinary Area Seminar: China (3)

Problem oriented, interdisciplinary course. Normally taken upon completion of other degree course requirements. *Prerequisite:* coursework pertinent to the area in a minimum of two disciplines.

33.745 Interdisciplinary Area Seminar: Japan (3)

Problem oriented, interdisciplinary course. Normally taken upon completion of other degree course requirements. *Prerequisite:* coursework pertinent to the area in a minimum of two disciplines.

33.746 Interdisciplinary Area Seminar: South Asia (3)

Problem oriented, interdisciplinary course. Normally taken upon completion of other degree course requirements. *Prerequisite:* coursework pertinent to the area in a minimum of two disciplines.

33.747 Interdisciplinary Area Seminar: Southeast Asia (3)

Problem oriented, interdisciplinary course. Normally taken upon completion of other degree course requirements. *Prerequisite:* coursework pertinent to the area in a minimum of two disciplines.

33.748 Interdisciplinary Area Seminar: Latin America (3)

Problem oriented, interdisciplinary course. Normally taken upon completion of other degree course requirements. *Prerequisite:* coursework pertinent to the area in a minimum of two disciplines.

53.611 The Conduct of Political Inquiry and Research I (6)

(See SGPA)

53.613 The Conduct of Political Inquiry and Research II (3)

(See SGPA)

53.614 Quantitative Methods in Political Science (3)

(See SGPA)

19.603 Introduction to Economic Theory

Prerequisite: 19.100 Introduction to Economics, or equivalent. (See Economics)

33.590 Independent Reading Course (3)

33.690 Independent Research Course (3-6)

33.797 M.A. Thesis Supervision (3-6)

33.799 Doctoral Dissertation Supervision (3-12)

INTERNATIONAL RELATIONS THEORY

33.601 Foci of Analysis in International Relations (3)

Problem identification, definition of the boundaries of the field, development of normative and analytic goals, and establishment of priorities.

33.603 Systematic International Relations (3)

Examination of alternative analytical perspectives, selection of appropriate methods and development of research plans. *Prerequisite:* 33.601 or equivalent.

33.707 Research Seminar in International Relations (3)

Application of a research design regarding a substantive problem in international relations. Organization of seminar may vary according to need around a substantive problem focus, a technique focus, or a more general focus. *Prerequisite:* 33.601 and 33.603 or equivalent.

33.710 Seminar on Evaluation of Theory and Research in International Relations (3)

A clinical evaluation of theory and research preparatory for comprehensive examinations. *Prerequisite:* 33.601 and 33.603 or equivalent.

33.553 Psychological and Cultural Bases of International Politics (3)

(See International Communication)

INTERNATIONAL LAW AND ORGANIZATION

33.621 International Law (3)

Nature and functions of international law in interstate relations, with emphasis on cases, documents and other original materials.

33.625 International Organization (3)

Organization of the international system, with emphasis on the institutional forms of international order and the functions and processes of global and regional organizations.

33.629 Special Topics in International Law and Organization (3)

Intensive analysis of selected topics in international law and organization. *Prerequisite:* 33.621 or 33.625, as appropriate to semester topic. May be repeated for credit.

33.720 Seminar in International Law (3)

Research seminar, focusing on selected problems in contemporary international law. *Prerequisite:* 33.621 or equivalent. May be repeated for credit.

33.729 Seminar in International Organization (3)

Research seminar, focusing on selected problems in contemporary international organization. *Prerequisite:* 33.625 or equivalent. May be repeated for credit.

INTERNATIONAL COMMUNICATION

33.553 Psychological and Cultural Bases of International Politics (3)

Phenomena and problems of international political behavior in terms of underlying psychological and cultural forces. Theory of international politics from behavioral science points of view. *Prerequisite:* 33.351 or 33.651.

33.651 Foundations of International Communication (3)

Concepts, theories and problems of international communication in terms of individual group behavior as presented in social and behavioral sciences.

33.655 Seminar in Cross-Cultural Communication (3)

Contribution of relevant social and behavioral sciences to study of intercultural and cross-cultural communication. Culture as communication and analysis of value-systems as essential element in communication. *Prerequisite:* 33.651 or equivalent.

33.657 Communication and Political Development (3)

Theories and models of communication and political development. Communication patterns and political socialization in modernization process. *Prerequisite:* permission of instructor.

33.658 Communication in Social and Economic Development (3)

Communication as instrument of social and economic development. Uses of communication for national integration, social change, and diffusion of innovation. *Prerequisite:* permission of instructor.

17.531 International Communication Systems (3)

(See Department of Communication)

17.760 Methodology of Communication Research (3)

(See Department of Communication)

FOREIGN POLICY ANALYSIS

33.581 Problem Papers in American Diplomacy (3)

Role playing course in American diplomacy (adjustable to meet needs of foreign students). Each student is assigned the role of desk officer for a country or group of countries or for an international organization or agency. Work consists of preparation of typical State Department (Foreign Office) and foreign service documents, including briefing papers, position papers, political and economic reports, speech drafts, press statements, public affairs guidance, group reports and national policy papers.

33.605 International Conflict and Conflict Resolution (3)

Conflict theory and approaches to mitigation and resolution of conflict in the international system.

33.661 The United States in World Affairs (3)

Analysis of recent and contemporary interstate relations in areas of American influence and the place of the United States in world affairs.

33.681 United States Foreign Policy (3)

The principal elements of U.S. foreign policy, factors shaping it, and problems of conduct and control.

33.683 National Security Policy (3)

Principal elements of U.S. national security policy, including policy making, implementation and control; civilian-military, military-industrial, executive-legislative relations; interaction of security policy of United States and other powers.

33.685 Comparative Foreign Policy Analysis (3)

Interaction of domestic and international policies of nations-states; internal and systemic determinants of foreign policy examined comparatively.

33.687 Seminar in Executive-Legislative Interactions in U.S. Foreign Policy (3)

Roles and relationships of Congress, President, executive agencies, and public opinion in the development of foreign policy and its administration. Interrelationships of domestic and foreign policy issues. *Prerequisite:* 33.681 or equivalent.

33.689 Special Topics in Foreign Policy and National Security Policy (3)

Intensive analysis of selected topics in foreign policy and national security policy. *Prerequisite:* At least one of the following: 33.681, 33.683, 33.685, 33.687, or equivalent.

33.780 Seminar in Foreign Policy Analysis (3)

Research seminar with focus on foreign policy issues and processes. *Prerequisite:* At least one of the following: 33.681, 33.683, 33.685, or 33.687, or equivalent. May be repeated for credit.

53.651 The Legislative Process (3) (See SGPA)

53.652 The National Executive (3) (See SGPA)

- 53.654 The Formation of Public Policy (3)**
(See SGPA)
- 53.660 Political Institutions and Behavior (3)**
(See SGPA)
- 53.661 American Political Behavior (3)**
(See SGPA)
- 53.662 Theories and Concepts of Political Behavior (3)**
(See SGPA)
- 54.660 Science and the State (3)**
(See SGPA)
- 54.661 The Public Management of Science (3)**
(See SGPA)
- 54.663 Science, Technology, and International Affairs (3)**
(See SGPA)
- 54.670 American Public Policy (3)**
(See SGPA)
- 54.671 Policy Analysis and Evaluation (3)**
(See SGPA)
- 54.672 Comparative Public Policy (3)**
(See SGPA)
- 54.675 Federal Fiscal Policy (3)**
(See SGPA)
- 54.760 Seminar in Science, Technology, and Government (3)**
(See SGPA)
- 54.770 Seminar in Government and Public Policy (3)**
(See SGPA)

COMPARATIVE POLITICS

(See Government and Public Administration)

- 53.540 Comparative Politics: Western Europe (3)**
- 53.541 Comparative Politics: USSR (3)**
- 53.542 Comparative Politics: Middle East (3)**

- 53.543 Comparative Politics: Africa (3)**
- 53.544 Comparative Politics: Communist China (3)**
- 53.545 Comparative Politics: Japan (3)**
- 53.546 Comparative Politics: South Asia (3)**
- 53.547 Comparative Politics: Southeast Asia (3)**
- 53.548 Comparative Politics: Latin America (3)**
- 53.549 Comparative Politics: Israel**
- 53.631 Comparative Politics of Industrial and Post-Industrial Societies (3)**
- 53.632 Comparative Politics of Agrarian and Industrializing Societies (3)**
- 53.633 Comparative Political Parties (3)**
- 53.634 Comparative Bureaucracies (3)**
- 53.635 Comparative Interest Groups and Elites (3)**
- 53.730 Seminar in Comparative Politics (3)**
- 53.735 General Symposium in Comparative Politics (3)**

INTERNATIONAL ECONOMIC POLICY

(See Department of Economics)

- 19.603 Introduction to Economic Theory (3)**
- 19.590 (19.311) International Economics (3, Course)**
- 19.551 International Economic Theory (3)**
- 19.558 Current International Economic Problems (3)**

19.784 Seminar in International Trade and Finance (3)

ECONOMIC DEVELOPMENT POLICY

(See Department of Economics)

- 19.603 Introduction to Economic Theory (3)**
- 19.590 (19.307) Political Economy of Economic Development (3) (Course)**
- 19.553 Economic Problems of Southern Asia: Survey (3)**
- 19.554 Economic Problems of Southern Asia—Case Studies: Indonesia, Malaysia and Singapore (3)**
- 19.555 Political Economy of Latin America: Theories v. Problems (3)**
- 19.559 Patterns and Problems of Economic Development in Asia (3)**
- 19.560 Economic Development (3)**
- 19.561 Development Planning (3)**
- 19.788 Seminar in Economic Development (3)**

COMPARATIVE ECONOMIC SYSTEMS

(See Department of Economics)

- 19.603 Introduction to Economic Theory**
- 19.512 Theory of Comparative Economic Organization and Institutions**
- 19.552 Structure and Operation of the Soviet Economy**
- 19.791 Seminar in Comparative Economic Systems**

DIPLOMATIC HISTORY AND INTERNATIONAL RELATIONS

33.560 International Relations Between the Wars (3)

Diplomacy of 1919-1939, with particular reference to Europe.

Development and breakdown of the French system, collective security, Fascism, Nazism, the Soviet Union, and the role of the United States in European affairs.

33.561 Diplomacy of World War II (3)

History of the diplomatic front during the War. Groundwork of postwar settlement.

33.562 International Relations

33.572 of the Middle East I and II (3, 3)

Analysis of recent historical and contemporary interstate relations in the Middle East and North Africa and the place of the Middle East in world affairs.

33.563 International Relations

33.573 of Africa I and II (3, 3)

Analysis of recent historical and contemporary interstate relations in Africa and place of Africa in world affairs.

33.564 International Relations

33.574 of East Asia I and II (3)

Analysis of recent historical and contemporary interstate relations in East Asia and the place of East Asia in world affairs.

33.576 International Relations of South Asia (3)

Analysis of recent and contemporary interstate relations in South Asia and the place of South Asia in world affairs.

33.577 International Relations of Southeast Asia (3)

Analysis of recent and contemporary interstate relations in Southeast Asia and the place of Southeast Asia in world affairs.

33.578 International Relations of Latin America (3)

Analysis of recent and contemporary interstate relations in Latin America and the place of Latin America in world affairs.

33.661 The United States in World Affairs (3)

(See Foreign Policy Analysis)

33.670 International Relations of Western Europe (3)

Analysis of recent and contemporary interstate relations in Western Europe and the place of Western Europe in world affairs.

33.671 Soviet Russia in World Affairs (3)

Analysis of recent and contemporary interstate relations in areas of Soviet influence and the place of the USSR in world affairs.

33.679 Special Topics in Regional International Relations (3)

Intensive analysis of selected topics in contemporary international relations with a regional or area focus. *Prerequisite:* appropriate course in 33.562-671 series, or equivalent.

33.779 Seminar in Regional International Relations (3)

Research seminar with focus on the international relations of a specified area, region, or country, or the place of that area, region, or country in world affairs. *Prerequisite:* Appropriate course in 33.562-.671 series, or equivalent.

29.541 Topics in the History of Expansion and Imperialism (3)

(See Department of History)

29.569 Diplomatic History of Europe I: 1789-1871 (3)

(See Department of History)

29.570 Diplomatic History of Europe II: 1871-1939 (3)

(See Department of History)

29.573 History of US Foreign Policy I: 1776-1900 (3)

(See Department of History)

29.574 History of US Foreign Policy II: 1900 to Present (3)

(See Department of History)

29.577 Diplomatic History of Latin America (3)

(See Department of History)

HISTORY

(See Department of History)

29.501 Period Studies in Western European History (3)

29.503 Period Studies in French History (3)

29.505 Period Studies in German History (3)

29.507 Period Studies in Russian and East European History (3)

29.509 Period Studies in British History (3)

29.513 Period Studies in Latin American History (3)

29.521 Topics in Western European History I (3)

29.522 Topics in Western European History II (3)

29.525 Topics in British History I (3)

29.526 Topics in British History II (3)

29.529 Topics in Russian and East European History I (3)

29.530 Topics in Russian and East European History II (3)

29.537 Topics in Latin American History I (3)

29.538 Topics in Latin American History II (3)

29.541 Topics in the History of Expansion and Imperialism (3)

29.545 Topics in Asian Histories I (3)

29.546 Topics in Asian Histories II (3)

29.549 Topics in Comparative History (3)

29.551 Intellectual History of Europe I (3)

29.552 Intellectual History of Europe II (3)

29.553 Intellectual History of Europe III (3)

29.559 Latin American Intellectual History (3)

29.620 Colloquium in European History: 1500-1799 (3)

29.621 Colloquium in European History: Since 1799 (3)

29.625 Colloquium in British History to 1689 (3)

29.626 Colloquium in British History Since 1689 (3)

29.670 Colloquium in Latin American History I (3)

29.671 Colloquium in Latin American History II (3)

- 29.710 Research Seminar in European History (3)**
- 29.715 Research Seminar in British History (3)**
- 29.750 Research Seminar in Latin American History (3)**

CULTURAL AREA ANALYSIS

(See Department of Anthropology)

- 3.590 (3)**
- (3.201) Introduction to Cultural Anthropology (Course)**
- (3.335) Ethnographic Survey (Course)**
- (3.336) Social Structure (Course)**
- 3.537 Language in Culture (3)**
- 3.538 Systemic Analysis (3)**
- 3.539 Ethnology (3) (alternation of focus on East Asia, South Asia, Southeast Asia, Africa, Latin America)**
- 3.543 Analytical Methods (3)**
- 3.544 Applied Anthropology (3)**
- 3.701 Seminar: Cultural Dynamics (3)**
- 3.703 Seminar: Anthropology of Development (3)**
- 3.704 Seminar: Social Anthropology (3)**

HISTORY OF RELIGION

(See Department of Philosophy and Religion)

- 47.590 Philosophies of the East (47.305) (3)**
- 47.590 Comparative Religion (3) (47.383)**
- 47.550 Studies in Non-Christian Religions (3) (alternation of focus on Hinduism, Buddhism, Taoism, Confucianism, Islam)**

FOREIGN LANGUAGES

(See Department of Language and Foreign Studies)

In addition to courses of language instruction, the following substantive courses are taught in the language of the area.

- 75.523 Colloquium on France (3)**
- 75.533 Colloquium on Germany (3)**
- 75.543 Colloquium on The Soviet Union (3)**
- 75.553 Colloquium on Latin America (3)**

Language and Foreign Studies

Undergraduate Courses

The basic undergraduate level courses offered by the department through its Language Institute are listed alphabetically by field of study below. French, German, Hebrew, Japanese, Russian and Spanish, on both the elementary and intermediate level, are always offered during each academic year. Other languages are offered on a rotating basis or special arrangements can be made for a tutorial program. Students should consult the semester bulletins for formal course offerings. Expressions of individual interests or needs should be directed to the Department Chairman who will, whenever possible, provide for registration in either a small group session or a programmed course of study.

Offered each academic year

French	Japanese
German	Russian
Hebrew	Spanish

Offered on a rotating basis or by tutorial

Arabic	Korean
Chinese	Norwegian
Czech	*Polish
Danish	Portuguese
Dutch	Serbo-Croatian
Greek (Modern)	Swedish
*Hindi	Thai
*Hungarian	Vietnamese
*Indonesian	Yiddish
Italian	

* Offered in 1972-73 as regular courses

DESCRIPTION OF THE LANGUAGE PROGRAM

First Year

100-level "Elementary" language courses. Emphasis on audio-lingual skills. Intensive drills on structure. Emphasis on pronunciation and fluency in common speech situations. Inductive presentation of grammar. Basic vocabulary. Reading and writing as auxiliary skills. Five clock hours per week of class instruction plus individual language laboratory work. In all language courses, students are expected to do individual language laboratory work outside of class.

Second Year

200-level "Intermediate" language courses.
Development of audio-lingual skills, reading and writing. Copious drills. Text material focused on cultural patterns. Five clock hours per week of class instruction plus individual language laboratory work.

200-level "Intermediate for Research" language courses.
Development of reading and comprehension skills. Texts focused on natural or social sciences. Conducted as guided self-learning project utilizing programmed instructional materials. Hours for student-teacher consultations arranged. These courses are available to graduate students only. They are offered on a non-credit basis, at a special reduced fee of \$77 and may be used to satisfy the tool of research requirement.

Third Year

300-level "Topics"
Content lecture course on a selected topic. Taught in the foreign language. Designed for both majors and nonmajors. May be taken more than once for credit. (Some sections will be conducted as field projects)

300-level "Conversation and Composition."
Further development of audio-lingual and reading-writing skills. Idioms. Semantic problems. Designed especially for majors.

Fourth Year

400-level "Civilization".
Survey of a foreign civilization. Emphasis on the historical development of literature. Topical lectures. Designed for both majors and non-majors.

400-level "Conversation and Composition".
Perfection of audio-lingual and reading-writing skills. Progression from controlled conversation and composition to free speech and writing. Problems of style. Designed especially for majors.

400-level "Pro-Seminar".
Discussion group with emphasis on selected topics and individual problems. Designed especially for majors. May be taken more than once for credit.

NOTES: Academic credit may not be earned for language courses below the level already completed by the student elsewhere, including high school.

In all language courses, students are expected to do individual language laboratory work outside of class.

Beginning with Elementary II, successful completion of the preceding level is prerequisite, unless otherwise specified.

FRENCH STUDIES

36.120 French, Elementary I (Course)

36.121 French, Elementary II (Course)

36.220 French, Intermediate I (Course)

36.221 French, Intermediate II (Course)

36.222 French, Intermediate for Research (no credit)

37.320 French Topics (Course)
Content courses taught in French on one of the following topics: (1) Survey of Arts, (2) Political Life, (3) Customs and Manners,

(4) The Younger Generation, (5) Architecture, (6) Leisure and Entertainment, (7) Provinces, (8) The Woman, (9) Rulers and Statesmen, (10) Paris. *Prerequisite:* Two years of college French or the equivalent.

37.322 French Conversation and Composition I (Course)

Prerequisite: two years of college French or equivalent.

37.323 French Conversation and Composition II (Course)

37.420 French Civilization I (Course)

Prerequisite: three years college French or equivalent.

37.421 French Civilization II (Course)

Prerequisite: three years of college French or equivalent.

37.422 French Conversation and Composition III (Course)

Prerequisite: 37.323 or equivalent.

37.423 French Conversation and Composition IV (Course)

37.424 French Pro-Seminar (Course)

Prerequisite: three years college French or equivalent.

GERMAN STUDIES

36.130 German, Elementary I (Course)

36.131 German, Elementary II (Course)

36.230 German, Intermediate I (Course)

36.231 German, Intermediate II (Course)

36.232 German, Intermediate for Research (no credit)

37.330 German Topics (Course)
Content course taught in German on the following topics: (1) Customs and Manners, (2) Lands and Regions, (3) East and West, (4) Survey of Arts. *Prerequisite:* Two years of college German or the equivalent.

37.332 German Conversation and Composition I (Course)

Prerequisite: two years of college German or equivalent.

37.333 German Conversation and Composition II (Course)

37.430 German Civilization I (Course)*Prerequisite:* three years college German or equivalent.**37.431 German Civilization II (Course)***Prerequisite:* three years college German or equivalent.**37.432 German Conversation and Composition III (Course)***Prerequisite:* 37.333 or equivalent.**37.433 German Conversation and Composition IV (Course)****37.434 German Pro-Seminar I (Course)***Prerequisite:* three years college German or equivalent.**HEBREW STUDIES****36.160 Hebrew, Elementary Modern I (Course)****36.161 Hebrew, Elementary Modern II (Course)****36.260 Hebrew, Intermediate Modern I (Course)****36.261 Hebrew, Intermediate II (Course)****JAPANESE STUDIES****36.165 Japanese, Elementary I (Course)****36.166 Japanese, Elementary II (Course)****36.265 Japanese, Intermediate I (Course)****36.266 Japanese, Intermediate II (Course)****37.365 Japanese Conversation and Composition I (Course)****37.366 Japanese Conversation and Composition II (Course)****LINGUISTICS (IN ENGLISH)****37.199 International Vocabulary (Course)**

Designed especially for students interested—vocationally and

vocationally—in the phenomenon of international vocabulary. Pronunciation, transliteration, and contextual meaning of foreign words. Foreign names and terms. No foreign language prerequisite.

37.300 Language, Introduction to (Course)

The nature of language. The field of linguistics. Languages of the world. Linguistic terminology. Relation of linguistics to other disciplines.

RUSSIAN STUDIES**36.140 Russian, Elementary I (Course)****36.141 Russian, Elementary II (Course)****36.240 Russian, Intermediate I (Course)****36.241 Russian, Intermediate II (Course)****36.242 Russian, Intermediate for Research I (no credit)****37.340 Russian Topics (Course)**

Content courses taught in Russian on the following topics: (1) Map of the USSR, (2) Political System, (3) The Press. *Prerequisite:* Two years of college Russian or the equivalent.

37.342 Russian Conversation and Composition I (Course)*Prerequisite:* two years of college Russian or equivalent.**37.343 Russian Conversation and Composition II (Course)****37.440 Russian Civilization I (Course)***Prerequisite:* three years college Russian or equivalent.**37.441 Russian Civilization II (Course)***Prerequisite:* three years college Russian or equivalent.**37.442 Russian Conversation and Composition III (Course)***Prerequisite:* 37.343 or equivalent.**37.443 Russian Conversation and Composition IV (Course)****37.444 Russian Pro-Seminar (Course)***Prerequisite:* Three years of college Russian or the equivalent

LANGUAGE COURSES

SPANISH STUDIES

- 36.150 Spanish, Elementary I (Course)**
- 36.151 Spanish, Elementary II (Course)**
- 36.250 Spanish, Intermediate I (Course)**
- 36.251 Spanish, Intermediate II (Course)**
- 36.252 Spanish, Intermediate for Research (no credit)**
- 37.350 Spanish Topics (Course)**
Content course taught in Spanish on the following topics: (1) Regions of Spain, (2) Social Scene in Latin America, (3) Customs and Manners (Spain), (4) regionalism (Latin America), (5) Survey of Latin American Arts, (6) Mexico's Culture. *Prerequisite:* two years of college Spanish or the equivalent.
- 37.491 Proyecto Amistad (Course)**
Supervised and directed field project involving student with Spanish-speaking community of Washington, D.C. *Prerequisite:* two years of college Spanish or its equivalent.
- 37.352 Spanish Conversation and Composition I (Course)**
Prerequisite: two years of college Spanish or equivalent.
- 37.353 Spanish Conversation and Composition II (Course)**
- 37.450 Spanish (Hispanic) Civilization I (Course)**
Prerequisite: three years college Spanish or equivalent.
- 37.451 Spanish (Hispanic) Civilization II (Course)**
Prerequisite: three years college Spanish or equivalent.
- 37.452 Spanish Conversation and Composition III (Course)**
Prerequisite: 37.353 or equivalent.
- 37.453 Spanish Conversation and Composition IV (Course)**
- 37.454 Spanish Pro-Seminar (Course)**
Prerequisite: three years college Spanish or equivalent.
- 37.390 Independent Reading Course in Languages, Foreign Studies and Linguistics (Quarter-course to double course)**

See page 32.

37.490 Independent Study Project in Languages, Foreign Studies, and Linguistics (Quarter-course to double course)

See page 32.

Advanced Courses

Prerequisite for admission to all advanced courses: permission of the department unless otherwise specified. All courses listed below carry graduate credit. 500-level courses open to graduate and undergraduate students. Undergraduate students in .500-level courses receive one course unit. .600 and .700-level courses open to graduate students only.

LINGUISTIC STUDIES

- 37.500 Principles of Linguistics I (3)**
Introduction to the scientific study of language, with emphasis on structural linguistics.
- 37.501 Principles of Linguistics II (3)**
Introduction to the study of language change, classification of languages, and linguistic reconstruction. Readings, problems, and class discussions.
- 37.502 Linguistic Structure I; Phonetics and Phonemics (3)**
Phonetics and phonemics. Techniques of describing speech sounds in terms of articulatory movements and formulas. Practice in hearing and transcribing phonetic sounds, using tape recordings. Basic premises underlying phonemic analysis and practical procedures for arriving at the phonemes of a language. *Prerequisite:* 37.500, which may be taken concurrently.
- 37.503 Linguistic Structure II: Morphology and Syntax (3)**
Problems in the analysis and description of morphological data. Introduction to transformational generative grammar. *Prerequisite:* 37.502.
- 37.504 Structure of Modern American English (3)**
Systematic examination of English phonology and grammar as well as regional and social aspects of American English. *Prerequisite:* permission of the department.
- 37.505 History of Linguistics (3)**
Linguistic theories from the Greeks to modern times. Great linguists and their schools of thought. Development of American linguistics.
- 37.507 Applied Linguistics: Methodology of Foreign Language Teaching (3)**
Comparison of various methods of language teaching. Principles underlying the structural method of language teaching. Application of linguistics in the preparation of teaching materials. Audio-visual aids.

37.508 Teaching English as a Foreign Language (3)

Methods of teaching English as a foreign language: development of teaching materials; discussion of textbooks, lesson planning, problems of the foreign student. Portion devoted to practical work; writing materials and presenting them orally for class critique.

37.509 Theory and Construction of Grammars (3)

Emphasis is on the construction of grammars as defining devices to characterize languages. Automata-equivalent to various types of grammars are considered, as well as mathematical relations among grammars. Types of languages considered are mathematical, logical, computational and two-dimensional, in addition to natural language. *Prerequisite:* 37.503 which may be taken concurrently.

37.510 Workshop in Foreign Language Teaching (1-3)

Workshop dealing with practical problems of foreign language teaching. Designed especially for prospective language teachers and teaching assistants.

37.595 Linguistic Introduction to Sanskrit I (3)

Primary stress on learning the linguistic structure of Sanskrit and on developing reading skill. The position of Sanskrit within the Indo-European family of languages. Historical development of Sanskrit.

37.600 Linguistic Structure III: Theories of Syntax (3)

Introduction to and comparison of various models on syntactic analysis. *Prerequisite:* 37.503.

37.605 Semantics (3)

History of semantic theory. Semantic changes, reflecting cultural change. Ambiguity of meaning. Metaphors. Synonymy. Etymologies. World-field theory. Structural semantics versus historical semantics.

37.710 Seminar in Linguistics (3)

Reports and critical discussion on various theoretical and practical problems in the scientific study of language, methodology in linguistic research, and other pertinent linguistic subjects. Different content fall and spring. Course may be taken for credit more than once.

FRENCH STUDIES

37.520 French Structure (3)

A contemporary and historical analysis of the phonology, morphology and syntax of French.

37.521 History of the French Language (3)

Study of the French language through various stages of its development.

37.552 French Stylistics (3)

Word choice and word grouping. Figurative speech. Rhetorical figures. Grammatical elements of style. Style levels.

37.523 French Romanticism (3)

Development of the Romantic movement in early 19th century French literature. Analysis of sentiments of the romanticists.

37.524 French Realism (3)

19th century French literature from decline of romanticism to turn of century. Periods of expression known as realism, naturalism, and symbolism.

37.525 Contemporary French Literature (3)

Course content changes each semester; emphasis on genre, movement or major writers. Course may be taken for credit more than once.

37.526 The French Renaissance (3)

Renaissance and humanistic movement in France in the 16th century. Rabelais, the *Pleiade*, Ronsard, Montaigne.

37.527 Eighteenth Century France; Men and Ideas (3)

Attitudes and ideas of the age of enlightenment as reflected in Montesquieu, Diderot, the Encyclopedists. Voltaire and Rousseau.

37.702 Seminars in French Literature (3)

Reports and critical discussion of research papers on French literature. Different content fall and spring. Course may be taken for credit more than once.

75.523 Colloquium on France (3)

Lectures, reports and critical discussions on selected topics pertaining to France's current role in international politics; cultural trends; economic problems. In French. Course may be taken for credit more than once. *Prerequisite:* three years college French or equivalent.

GERMAN STUDIES

37.530 German Structure and Problems in Teaching German (3)

Problems in a descriptive analysis of the German structure, and the impact of new linguistic findings on the practice of teaching German.

37.531 History of the German Language (3)

Historic development of the German language. Scholarly methods applied in diachronic linguistics.

37.532 German Stylistics (3)

Style in general and German style features in particular. To familiarize the student in theory with what constitutes style levels in non-artistic usage and also to make him recognize the elements of style in literary works of art.

37.535 Topics, Motifs and Convention in German Literature (3)

Understanding and application of modern theoretical aspects reflecting present day thinking in German literary criticism.

37.535 German Literature in the Middle Ages (3)

Medieval literature in Germany from approximately 900 to

LITERATURE COURSES

1400 A.D. Covers a period vital to the understanding of German intellectual development.

37.536 German Literature of the 17th and 18th Century (3)

Content alternates between (a) Barock period, and (b) Lessing and his time. Course may be taken for credit twice.

37.537 Classical Period in German Literature (3)

Content alternates between (a) Goethe and his time, and (b) Schiller and his time. Course may be taken for credit twice.

37.538 Nineteenth Century German Literature (3)

From romanticism to realism and subsequent developments to the beginning of World War I. Selected representatives such as Heine, Keller, Storm, Stifter, Fontane, the naturalists.

37.539 Contemporary German Literature (3)

Content changes each semester; emphasis on (a) novel, or (b) drama, or (c) poetry. Course may be taken for credit more than once.

37.703 Seminar in German Literature (3)

Reports and critical discussion of research papers on German literature. Different content fall and spring. Course may be taken for credit more than once.

75.533 Colloquium on Germany (3)

Lectures, reports and critical discussions on selected topics pertaining to Germany's current role in international politics; cultural trends; economic problems. In German. Course may be taken for credit more than once. *Prerequisite:* three years college German or equivalent.

GENERAL STUDIES

37.590 Independent Reading Courses in Language or Linguistics (1-6)

See page 32.

37.690 Independent Study Project in Language or Linguistics (1-6)

See Page 32.

37.700 Visiting Scholar's Seminar (3)

Seminar with flexible content pertaining to one or more selected topics in foreign literatures, cultures, and linguistics. May be taken for credit more than once.

37.797 Master's Thesis Seminar (3-6)

Literature

English for Foreign Students

See course offerings under College of Continuing Education, English Language Institute.

23.100 Composition and Reading I (Course)

Training and practice in writing and critical reading. Concepts of language and rhetoric as the basis for effective expression in English. Includes techniques of library research, organization and writing of a documented research paper.

23.101 Composition and Reading II (Course)

Critical reading with related writing assignments. 23.100 or its equivalent is recommended for background.

23.102-103 Composition and Reading (Experimental) (Course)

An experimental section of 23.100. Most of the discussion of reading and writing, and much of the evaluation of student papers, occurs in small discussion groups of five or six students. Each group is led by an upperclass student selected for his or her writing skill and interest in helping freshmen.

23.104 Freshman Seminars in Literature and Other Disciplines (Course)

An alternative to Composition and Reading courses listed above. Students may wish to consider the seminar as a means of fulfilling the University Composition and Reading Requirement. See the semester bulletins for course topics.

23.125 Advanced Composition (Course)

Expository writing with some opportunities to write poetry and narrative. *Prerequisite:* 23.101 or equivalent.

23.127 Introduction to Creative Writing (Course)

Creative writing for beginning students who want to write poetry, fiction, drama, reportage and autobiography with specific assignments in each category. (With departmental permission, course may be repeated for credit.)

23.130 Honors English I (Course)

Limited to first-year students, by invitation.

23.131 Honors English II (Course)

Limited to first-year students, by invitation.

23.134-23.135 Studies in Literature (Course)

Two semester sequence that introduces student to various kinds of literature and literary problems from different countries of the world. Required of all literature majors. Lectures by the entire department faculty followed by small discussion sections.

23.140 Critical Reading (Course)

Concentration on means by which literary artists contemplate and comprehend human experience, artistic techniques which shape and achieve form. Required of all literature majors.

STUDIES IN MAJOR LITERARY WORKS AND WRITERS

(See series below)

23.300 Shakespeare I (Course)

Selected earlier plays.

23.300 Shakespeare II (Course)

Selected later plays.

23.300 Major British Writers I (Course)

Intensive study of the principal writers of the British tradition: Chaucer, Spenser, Shakespeare, Bacon, Donne, Milton, Dryden, Swift, Pope, Johnson, and Boswell. Each writer is examined as a representative voice of his age and as an individual artist.

23.300 Major British Writers II (Course)

Intensive study of principal writers in English tradition. Wordsworth, Coleridge, Byron, Shelley, Keats, Tennyson, Browning, Arnold, Shaw, Yeats and Eliot. Each writer will be examined as a representative voice of his age and as an individual artist.

23.300 Fictional Worlds: Conrad and Hardy (Course)

A close, chronological reading of the novels and stories of Conrad and Hardy, together with an investigation of their letters, biographies and, in Hardy's case, the poetry, to recover the underlying myths which generate and control the worlds of their fiction. Readings will include Hardy's *Under the Greenwood Tree*, *Far From the Madding Crowd*, *Mayor of Casterbridge*, *Jude* and selected poetry; Conrad's *Almayer's Folly*, *Lord Jim*, *Nostromo*, *Secret Agent*, *The Rover* and selected tales. The focus will be on the various artistic decisions these authors made, and what these decisions tell us about their modes of being-in-the-world.

23.300 George Bernard Shaw: Social Playwright (Course)

The COMPLETE SHAW—Playwright, socialist, pamphleteer, revolutionist, creative evolutionist, and even poet. All the plays will be read and as many political/social works as seem practicable. In addition, parallel reading of biographical and critical material will be assigned.

23.300 Studies in the Work and Influence of Georg Büchner (Course)

An essentially bilingual effort to survey the canon of Büchner's work, and to understand him as a major precursor of much in 20th-century symbolist, expressionist, and absurdist literature. Reading of *Danton's Death*, *Leonce and Lena*, *Lenz*, and *Woyzeck*, plus other work by and about him; exploration of his influences on such writers as Strindberg, Kaiser, Toller, Wedekind, Ionesco, Adamov, Beckett. Some consideration to the musical and painterly atmosphere of the expressionist period (Alban Berg, Gustav Klimt, Ludwig Kirchner, Oskar Kokoschka, Anton Webern, Egon Schiele, etc.). Reading knowledge of German highly desirable, but not required. Seminar technique; group discussion paramount. One paper on a selected topic. No examination. *Permission of the instructor only.*

23.300 An Introduction to Ulysses (Course)

Ulysses is to be intensively explored as a novel in which all crucial novelistic problems of the 20th century converge: point-of-view, treatment of time, the role of style, fragmented narrative, use of myth, intrusion of history into fiction, autobiographical esotericism, and of course first and foremost the problem of the reader vs. the novel, the novel vs. the reader. Seminar setting; discussion paramount. One take-home final. For the mature student. Recommended: Richard Ellman, *James Joyce*; also, by JJ, *Dubliners*, *Stephen Hero*, *Portrait*. Enrollment strictly limited to twenty students.

23.300 Eliot and Stevens (Course)

An in-depth study of these two major American poets. Students will be required to read the collected poems of both poets, as well as some selected secondary material. The course deals with differences in poetic aims and subject matter, as well as technique. Frequent classroom explications and short analytic papers required.

STUDIES IN LITERARY FORM

(Note series below)

23.310 Classical Legend and Myth in Greek and Modern Drama (Course)

A study in continuity. The course investigates the ways in which treatments of legends and myths vary from their sources and from one another. Instances will be derived largely from drama.

23.310 Introduction to American Folklore (Course)

Survey of the entire field: folk literature, ballads, songs, tales, proverbs, proverbial speech, epitaphs, names, children's folklore, riddles, rhymes, folk history, folk medicine, weatherlore, folk industry, folk arts and crafts, folk architecture, folk belief and superstitions, regional folklore, family folklore.

23.310 The Literary Idea as Form (Course)

The subject of this study will be the relationship between idea and form in literature. The writers and works covered will vary but will probably include Keats, Dante, Stendhal, Pope, Shakespeare, Faulkner, Song of Roland, *Tristan and Iseult*, some Symbolist poetry. The seminar method will be used. Students will present short papers as well as prepare a more substantial paper by the end of the semester.

23.310 The Development of the Novel (Course)

The theory of the novel. A study of the form of the novel from its beginnings down through Robbe-Grillet. Readings in selected novelists and critics of the novel. The emphasis will be on the European novel. A lecture course.

23.310 English Novel I: 18th Century (Course)

Reading and discussion of the major novelists of 18th century England: DeFoe, Richardson, Fielding, Smollett, and Sterne. Each novel is studied as a unique fiction and as a contribution to the novel.

23.310 English Novel II: 19th Century (Course)

Reading and discussion of the major novelists of 19th century England: Scott, Austen, Dickens, Thackeray, Eliot and Hardy. Each novel is studied as a unique fiction and as part of the novelistic tradition.

23.310 Tolstoy (Course)

Selected fiction of L. Tolstoy: *War and Peace*. Intensive study of *War and Peace* with emphasis on the work as a novel. Attention given, when appropriate, to the work in relation to literatures other than Russian and to disciplines other than literature.

23.310 Retrospective Narrative (Course)

Close reading of a selection of American retrospective narratives such as *Moby Dick*, *Walden*, *Huckleberry Finn*, *A Farewell to Arms*, and *In Cold Blood*. Develop insight into nature of storytelling and relationship of storytelling to other forms of discourse as well as to confront some major works of literature for their own sake.

23.310 A Critical Approach to the Cinema (Course)

Media theory. Development of an approach to film viewing. Practical criticism. Place that movies have within cultural traditions and conventions; explorations of extra-traditional film forms (experimental, independent, *avant-garde*).

23.310 Image-and-Sound Communications and Structure (Course)

Viewing of short films exemplifying the full scope of celluloid, TV programs and commercials, and feature films. Reading will include theory (Fuller and McLuhan), aesthetics (Langer and Montagu), perceptual psychology (Arnheim) and miscellaneous background (video, New Wave, underground, etc.). Students may produce their own image-and-sound expression, as well as writings and discussions.

STUDIES OF LITERATURE IN HISTORICAL CONTEXT

(Note series below)

23.320 The Place of Literature in Early Celtic Society (Course)

Will show the vital importance of literature in all aspects of early Indo-European society—religion, magic, government, law, education, etc.—by examining the powers of the poet among the medieval Irish and Welsh. Course materials will include readings in history, archaeology, social structure, art, and myth, as well as major sagas and poems of Ireland and Wales.

23.320 Classical Drama (Course)

Genesis and growth of drama as a form: beginning in Dionysiac revels, apex in Sophoclean tragedy, decline in Roman comedy. Readings from Aeschylus through Seneca emphasize student analysis of significant issues such as morality, the gods, legend and divine law, vengeance, passion, human rights, self-determination, and war and peace. Research paper.

23.320 History of Literary Criticism (Course)

Selected reading in literary criticism from Plato to T. S. Eliot.

23.320 Seventeenth Century Literature (Course)

Commonwealth and Restoration literature, with some attention to continental literature of the century, exclusive of drama. (Not offered in fall or spring of 1972-73.)

23.320 Eighteenth Century Literature (Course)

Outstanding authors and dominant literary forms in the neo-

classical tradition. Focus on Dryden, Swift, Fielding and Johnson. (Not offered in fall or spring of 1972-73.)

23.320 American Literature I—to 1865 (Course)

Survey of American literature (Major and minor writers) with special emphasis on its development as a continuing process. A lecture course. Open enrollment. (Not offered in fall or spring of 1972-73.)

23.320 American Literature II—from 1865 (Course)

Survey of American literature (major and minor writers) with special emphasis on its development as a continuing process. A lecture course. Open enrollment.

23.320 National American Literature (Course)

A literature course with substantial interdisciplinary overtones (political science, American history, and literature). A study of the century of effort to create deliberately a recognizably American literature as a cultural proof of nationhood. Writers include Cooper, Simms, Emerson, Hawthorne, Whitman, Garland and Howells.

23.320 Romantic Literature (Course)

Elements of Romanticism, with close attention to individual literary artists. Fall 1972: Blake, Wordsworth and Coleridge. Spring 1973: Byron, Shelley and Keats.

23.320 Victorian Poetry (Course)

A study of key Victorian poets and their use of poetic form. Emphasis on Tennyson and Browning, but discussions will include poems by Arnold, Hopkins and Hardy. Although the course deals with poetic techniques, other matters are discussed: social aspects of literature, conflict between religion and science, relation of artist to society, the aesthetic process, the poets' use of the past and tradition, and ways Victorian poetry foreshadows modern poetry.

23.320 Black American Writing (Course)

Survey of black American literature in the new world—the United States and the Caribbean—and the influences Africa has made on this literature: Phillis Wheatley through Malcolm X. (Not offered in fall or spring of 1972-73.)

23.320 Russian Literature in Translation (Course)

Selected novels and stories by Lermontov, Gogol, Turgenev, Dostoevsky, Tolstoy, Chekov, Sholokhov, Solzhenitsyn. An overview of 19th and 20th century Russian literature, with attention to fictional technique and historical perspective.

23.320 American Poetry Since 1950 (Course)

An examination of the major figures and movements in the poetry of the period, with a concentration on Robert Lowell, Theodore Roethke, Richard Wilbur, James Dickey, and Gary Snyder.

STUDIES IN LITERARY IDEAS
(Note series below)**23.330 Shakespeare and Politics (Course)**

Study of Shakespeare's dramatic portrayal of the struggle for

political power. The position and duty of a king. Plays to be covered: *King John*, Henry VI, 3 parts, *Richard III*, *Richard II*, Henry IV, Parts I and II, Henry V, *Coriolanus*, and *Julius Caesar*. Includes considerable reading in historical and philosophical background material.

23.330 Introduction to African Literature (Course)

An introduction to contemporary African writing: the novel, the short story, poetry, and drama. An emphasis will be placed upon the image of African cultures as depicted in these writings.

23.330 Fitzgerald and Hemingway: The Literature of Loss (Course)

Study of fiction of Fitzgerald and Hemingway with emphasis upon common theme of loss in their work. Relationship between the two men and their place within literary period of the twenties and thirties will also be explored through main emphasis upon thematic analyses of specific works.

23.330 History as Theme in American Literature (Course)

Study of literary works in which the force of history functions as a major theme or in which the relationship between an individual and the force of history is central. An attempt to analyze metaphors of history as they emerge from and shape such works of literature as Hawthorne's *Scarlet Letter*, Thoreau's *On Civil Disobedience*, Melville's *Benito Cereno*, Warren's *All the King's Men*, Faulkner's *The Bear*, Fitzgerald's *Tender is the Night*, Mailer's *Armies of the Night*. A lecture course. Open enrollment.

23.330 Psychoanalysis and the Literary Process (Course)

The psychology will be psychoanalytic, of the Freud, Hartmann, Erikson line (with some attention to the object relations theories of the British school, particularly H. Guntrip); the literature, English and American, so as to avoid the problems of translation. Because course is interdisciplinary, the reading will be heavy; the students are encouraged to have read some of the psychoanalysis, especially Freud's *Introductory Lectures*. Emphasis on understanding and coming to terms with the world as perceived by an "Other."

23.330 Metacriticism (Course)

Patterns of thought, perception, or behavior underlying the disciplines of literature and criticism; the relations between literature and science, literary study and other disciplines. Readings are interdisciplinary and theoretical. Some experience in literature courses beyond the introductory level is strongly recommended.

STUDIES IN MAKING AND PERFORMING LITERATURE

(Note series below)

23.340 Creative Writing (Course)

Training in writing prose and poetry through individual literary projects suited to student's needs and interests. There is a special section in which students may get training in film script writing. *Prerequisite*: permission of instructor.

67.170 Oral Interpretation (Course)

Analysis, interpretation, and practice in expressive reading of literature to develop ability in sharing literature with an audience. (See Speech Arts Department.)

23.350 History of the English Language (Course)

Development of the language from Old English to Modern English, with special studies on phonology, morphology, semantics, and vocabulary.

READING COURSES

The department offers two types of reading courses. Both allow the student to read independently and at his own pace.

23.380 Reading Lists (Course)

Student reads one of the 23 prepared lists covering major historical periods in literary history. Except for one final examination the course is fully independent. The department will help students enrolled for the same lists to contact one another. Students must come to the department office to get standard departmental lists and course instructions, and to make arrangements for registration.

23.390 Independent Reading Course in Literature (Quarter-course to double course)

The student, in consultation with a member of the department, before registration, prepares a reading list for an area of his particular interest. See page 32. For further information or instructions consult the Department Office.

23.490 Independent Study Project in Literature (Quarter-course to double course)

See page 32.

INTERNSHIP PROGRAM

23.491 Literature and the Community (Course)

Participants do field work, as volunteers, in a governmental or private agency, attend a weekly seminar, and complete reading and writing assignments that bring together literary study and experience in the field.

23.491 English Internship in Community Teaching (Course)

Practicum in relating literature to groups in non-academic situations (old people, deprived teenagers, probationers, etc.). One seminar a week (resources, problem solving, interdisciplinary assistance).

ADVANCED COURSES

Undergraduate students enrolled in .500 level courses will receive one course unit.

23.590 Independent Reading Course in Literature (1-6)

See page 32.

23.600/.610/.620/.630/.640/.650

Titles identical with those listed under 23.300/.310/.320/.330/.340 and .350. Graduate students who enroll in any of these courses should consult the instructor about special requirements.

**23.690 Independent Study
Project in Literature
(1-6)**

See page 32.

STUDIES IN LITERARY MODES

**23.725 The Epic: "Advent'rous
Song" (3)**

Aims to discover what is essential to Indo-European epic, and what motives lead men of different epochs to attempt such "advent'rous song." Reads ancient, medieval and modern epics, both oral and literary, as well as background critical theory from various periods. Students taking the course should begin reading the Iliad (Lattimore translation) before the term starts.

23.725 The Tragic Vision (3)

The nature of the tragic vision as it manifests itself in selected works of literature.

STUDIES IN MAJOR WRITERS

**23.726 Dostoevsky, Woolf, and
Faulkner: Psychological
Novelists (3)**

Investigation of several works by each writer, with emphasis on psychological techniques and conventions, thematic interests, and the authors' respective contributions to the development of the modern novel.

**23.726 T. S. Eliot:
the Rose-Garden Behind
the Wasteland (3)**

The poet's struggle to find meaning in a culturally baseless society, his use of the American and English heritage, his tragic vision. The focus will be centered first on the poetry, including attention to form: dramatic monologue, rhythm, rhyme, imagery. Some account will be taken of critical essays and principles, and of essays treating broader aspects of Eliot's ideas. The plays will provide the final focus of the course.

23.797 Master's Thesis (3-6)

**23.750 Theory of Literary
Criticism (3)**

Required of Ph. D. candidates. Open to other graduate students by permission. (Fall 1972)

**23.753 Theory of Literary
History (3)**

Required of Ph. D. candidates. Open to other graduate students by permission. (Spring 1973)

**23.756 Theory of Literary
Form (3)**

Required of Ph. D. candidates. Open to other graduate students by permission. (Fall 1972)

**23.757 Theory of Literary
Form (3)**

Required of Ph. D. candidates. Open to other graduate students by permission. (Spring 1973)

Additional .700-level courses are being developed for 1973-74. Information concerning these courses should be requested from the department.

See also: Speech Arts. The following courses may be taken for credit toward a Literature major:

67.170 Oral Interpretation

**67.124-.125 Survey of
Theatre I, II**

**67.394 Modern American
Theatre and Drama**

**67.550-.551 History of
Theatre I, II**

**67.556 History of the
American Theatre**

**67.560 Dramatic Theory
and Criticism**

See also: Interdisciplinary Course Listings in the Semester Bulletins.

**75.700 The Folger Seminar in
Renaissance and Eighteenth-
Century Studies**

Each semester three graduate seminars are offered. Graduate students at The American University are eligible to participate and should consult either the Chairman of the University's Interdisciplinary Studies Committee or the Department's Graduate Advisor. May be taken more than one semester.

Mathematics

**41.100 Finite Mathematics
(Course)**

Sets, real numbers, solution of equations, inequalities, probability, functions, elementary linear algebra. Applications to biology, business and social sciences. No credit towards a mathematics major.

**41.101 Elements of Calculus
(Course)**

Continuity and limits. Differentiation and integration. Calculus of several variables. Series and differential equations. Intended for students in biological, social sciences, and business. No credit towards a mathematics major. *Prerequisite:* 41.100 or permission of Department.

**41.105-106 The Nature of
Mathematics I, II
(Course, Course)**

A nontechnical course. Interplay of mathematics with the natural, social, and physical sciences and the humanities.

**41.110 Fundamentals of
Mathematics (Course)**

Fundamentals of sets, functions, algebra, and trigonometry intended for students planning to continue in 41.111. *Prerequisite:* three years of high school mathematics.

41.111 Calculus I (Course)

Notation; real numbers; coordinate systems and distance; straight lines and loci; transformation of coordinates; functions and sequences; limits and continuity; differentiation and applications; anti-differentiation and applications; introduction to rigor and the nature of proof. *Prerequisite:* 41.110 or four years of high school mathematics.

41.222 Calculus II (Course)

Definite integration and applications; infinite series; power series representations; calculus of transcendental functions. *Prerequisite:* 41.111.

41.223 Calculus III (Course)

Matrices; linear substitutions and simultaneous equations; determinants; functions of several variables; calculus of several variables; differentials and Jacobians; implicit and inverse transformations; line integrals. *Prerequisite:* 41.222.

41.310 Linear Algebra (Course)

Vector spaces, systems of linear equations, solutions by matrices, determinants, linear transformations, algebraic forms. *Prerequisite:* 41.222 or to be taken concurrently with 41.222.

41.321 Differential Equations (Course)

First-order first-degree equations, linear equations of n th order with constant coefficients, Laplace transforms, applications of mechanics and electrical circuits, special equations of higher order, solution in series. *Prerequisite:* 41.223.

41.322 Calculus IV (Course)

Vector spaces, linear dependence and linear transformations; matrix representations; linear D. E.'s and spaces of solutions; Green's and Stokes' theorems. *Prerequisite:* 41.223.

41.390 Independent Reading Course in Mathematics (Quarter-course to double course)

See page 32.

41.412-413 Introduction to Modern Algebra (Course, Course)

Groups, rings, vector spaces and modules, fields and Galois theory. *Prerequisite:* two years of calculus.

41.440 Geometry (Course)

Selected topics in differential, projective or non-euclidean geometry.

41.474 Probability (Course)

Algebra of sets; probability in discrete sample spaces; combinatorial analysis; random variables; binomial, Poisson, normal and other distributions; applications. *Prerequisite:* 41.223.

41.480 History of Mathematics (Course)

Individual topics in the history of mathematics since Newton and Leibniz. *Prerequisite:* permission of the department.

41.490 Independent Study Project in Mathematics (Quarter-course to double course)

See page 32.

FOUNDATIONS AND ALGEBRA

Undergraduate students in 500-level courses receive one course unit.

41.502-503 Foundations of Mathematics (3,3)

Introduction to symbolic logic, axiomatics, set theory, transfinite numbers. Peano's axioms, Dedekind cuts, number systems, philosophy of mathematics. *Prerequisite:* junior or senior standing in Mathematics or admission to MST or MSST program. Not intended for graduate students in mathematics.

41.510 Matrix Theory for Applications (3)

Vector spaces, linear transformations, similarity, rational and classical canonical forms, unitary spaces, unitary equivalence, quadratic forms, congruence, rings of matrices, matrix representations of groups and algebras, applications to statistics, physics and other fields. Not intended for graduate students in mathematics. *Prerequisite:* 41.310

41.512 Modern Algebra**41.513 I, II, and III (3,3,3)****41.514**

Selected topics from Group theory: Isomorphism theorems, Sylow theorems, classification of groups, solvable and nilpotent groups, p -groups, direct products, free groups, extensions. Ring theory: Ideal theory in commutative rings, factorization theory, Noetherian and Artinian rings, Wedderburn-Artin theorem, Jacobson radical, algebras. Field theory: Extensions, Galois theory, Kummer theory, valuations, Dedekind fields, algebraic number theory. *Prerequisite:* 41.413.

41.515 Number Theory (3)

Divisibility; sequences of primes, fundamental theorem of arithmetic congruences; totient; Euler's theorem; Wilson's theorem; congruences, diophantine equations; primitive roots; quadratic residues; Jacobi symbol; quadratic reciprocity; number theoretic functions; Mobius inversion formula, multiplicative functions; sums of squares; partitions. *Prerequisite:* 41.223.

41.518 Linear Programming (3)

Theoretical, computational and applied areas. Topics include: convex sets, linear inequalities, extreme-point solutions, the simplex algorithm, duality problems, the transportation problem and method of solution, applications, theory of games. *Prerequisites:* 41.310 and graduate status, or permission of instructor.

41.519 Advanced Topics in Mathematical Programming (3)

Revised simplex algorithm, dual-simplex algorithm, integer programming, solution of large-scale systems, the decomposition algorithm, nonlinear programming, network analysis, parametric programming, sensitivity analysis. *Prerequisite:* 41.518, or permission of instructor.

41.576 Mathematical Methods of Operations Research (3)

Short review of probability theory, Laplace transform as used in probability theory. Stochastic processes and their use in industrial problems. Queueing theory, birth-death processes, other models where interarrival or service-time distributions are nonexponential, Inventory theory; linear and dynamic programming under uncertainty. *Prerequisites:* 41.474 and 69.502.

41.610 Advanced Linear Algebra (3)

Matrix theory, introduction to multilinear algebra, tensor prod-

ucts, orthogonal spaces, classical groups, algebras, projective geometry, infinite dimensional spaces. *Prerequisite:* 41.412-413.

41.616 Homological Algebra (3)

Homology, cohomology, homological dimension, Ext and Tor, spectral sequences, category theory. *Prerequisite:* 41.513.

ANALYSIS, GEOMETRY, AND TOPOLOGY

41.520-521 Introduction to Analysis I,II (3,3)

Analysis in Euclidean and metric spaces; point sets; completeness; convergence; continuity differentiability; Riemann integration. *Prerequisite:* 41.322.

41.523 Ordinary Differential Equations (3)

Existence theorems, Riccati equations, Solutions in power series, regular and irregular singular points, two-point boundary-value problems. Sturm-Liouville theory, orthogonal functions. *Prerequisites:* 41.321.

41.524 Partial Differential Equations (3)

First and second order linear equations, type, characteristics, reduction to normal forms, separation of variables, Poisson's formula, Green's function. *Prerequisite:* 41.321.

41.528 Differentiable Manifolds (3)

Differentiable manifolds, vectors, tensors, and differential forms. Frobenius theorems, Riemannian geometry, Lie groups. *Prerequisites:* 41.413 and 41.540.

41.540 Topology (3)

Topological spaces, continuity, compactness, connectedness, metric spaces. *Prerequisite:* 41.322.

41.570 Complex Variables for Applications (3)

Selected topics in complex variables; integrals of analytic functions; uniform convergence; power series; singularities; residues and contour integration. Not open to graduate students in mathematics. Fall. *Prerequisite:* 41.322.

41.620-621 Analytic Functions I,II (3,3)

Differentiation and integration of complex-valued functions, analyticity, Cauchy's theorems, Laurent series, singularities, contour integration and residue calculus, conformal mapping, analytic continuation, Weierstrass' and Mittag-Leffler's theorems. *Prerequisite:* 41.521.

41.624 Advanced Topics in Complex Variables (3)

Conformal mapping and Riemann mapping theorem. Schlicht functions and distortion theorems. Riemann surfaces and uniformization. Entire functions. Normal families. Elliptic functions and automorphic functions. *Prerequisite:* 41.621.

41.625 Calculus of Variations (3)

Extremization of functionals. Euler, Legendre, Weierstrass and Jacobi necessary conditions. Sufficient conditions for weak and strong extrema. Extremal fields and Hilbert's invariant integral.

Isoperimetric problems and inequalities. Direct methods. *Prerequisite:* 41.521.

41.626 Integral Equations (3)

Fredholm equations and theorems. Neumann series, resolvent, degenerate kernels. Hilbert-Schmidt theory, symmetric kernels, eigenfunction expansions, properties and estimation of eigenvalues. Application to boundary value problems. Singular integral equations. *Prerequisite:* 41.521.

41.630 Measure and Integration (3)

Measurability; integration and convergence theorems. Lp spaces, modes of convergence, differentiation, introduction to probability. *Prerequisite:* 41.521.

41.631 Functional Analysis (3)

Banach and Hilbert spaces; Hahn-Banach, open-mapping, closed-graph, and uniform boundedness theorems; introduction to spectral theory. *Prerequisites:* 41.630 and 41.540.

41.632 Advanced Topics in Real Variables (3)

Locally convex spaces, duality theory, operator theory, Fourier analysis. *Prerequisite:* 41.631.

41.641-642 Algebraic Topology I,II (3,3)

I: Covering spaces, fundamental groups, surfaces, introduction to homology. *Prerequisites:* 41.540, 41.413.

II: Homology groups, higher homotopy groups, fixed point theorems, manifolds. *Prerequisite:* 41.641.

NUMERICAL ANALYSIS

41.560 Numerical Analysis: Basic Problems (3)

Iterative solution of non-linear equations. Special methods for polynomials. Basic theory of polynomial approximation. *Prerequisites:* 41.460 and 41.322.

41.561 Numerical Analysis: Algebra (3)

Norms of vectors and matrices. Numerical solution of linear systems. Matrix inversion. Computation of eigenvalues and eigenvectors. *Prerequisite:* 41.560.

41.562 Numerical Analysis: Analysis (3)

Numerical Quadrature, Linear difference equations. Consistency, convergence, and stability. *Prerequisite:* 41.560.

41.563 Selected Topics in Numerical Analysis (3)

Special topics are selected from such areas as partial differential equations or numerical approximation.

MATHEMATICAL PHYSICS

41.550 Mathematics for Physics I (3)

Fourier series, integrals and transforms, Laplace transform

methods, eigenvalues and diagonalization of matrices, oscillatory systems and normal modes, calculus of variations, special functions. *Prerequisite:* 41.321.

41.551 Mathematics for Physics II (3)

Wave equation, vibrating strings and membranes, Laplace's equation, heat equation, complex variables and contour integration, conformal mapping, tensors. *Prerequisite:* 41.550.

41.590 Independent Reading Course in Mathematics (1-6)

See page 32.

41.654 Partial Differential Equations of Mathematical Physics I (3)

Second order hyperbolic equations, characteristics, Cauchy and Goursat problems, Riemann's method, quasi-linear equations. Legendre transformation, wave equation in n-dimensions, spherical means, Hadamard's method. *Prerequisites:* 41.524 or 41.551.

41.655 Partial Differential Equations of Mathematical Physics II (3)

Second order elliptic, parabolic, and mixed equations, problems of Dirichlet and Neumann, Green's function, potentials of volume and surface distributions, diffusion phenomena, Tricomi's equation. *Prerequisite:* 41.654.

41.656 Mathematical Theory of Fluid Dynamics I (3)

Basic kinematic and dynamics concepts, incompressible fluids, vorticity and circulation theorems, potential and stream function, plane and axially symmetric flows, conformal mapping, aerofoils, vortex lines and streets, jets and free streamline problems. *Prerequisite:* 41.551.

41.657 Mathematical Theory of Fluid Dynamics II (3)

Dynamics and thermodynamics of compressible fluids, subsonic, transonic, and supersonic flows, Prandtl-Busemann method, hodograph method, shock waves, viscous fluids, boundary layer theory, and turbulence. *Prerequisite:* 41.656.

SEMINARS

41.690 Independent Study Project in Mathematics (1-6)

See page 32.

41.700 Seminar in Mathematics

Research in mathematics, involving individual projects. May be repeated for credit.

41.797 Master's Thesis Seminar in Mathematics and Statistics (3-6)

41.799 Doctoral Dissertation Seminar in Mathematics and Statistics (6-12)

STATISTICS

69.202 Basic Statistics (Course)

Classification of data, averages, dispersion, probability, frequency distributions, confidence intervals, tests of significance, non-parametric techniques, simple regression and correlation. *Prerequisite:* 41.100 or permission.

69.300 Business Statistics (Course)

Estimation, inference, multiple regression and correlation. Elementary decision theory. *Prerequisite:* 69.202.

69.301 Psychological Statistics (Course)

Estimation, inference, special methods of two-variable correlation, multiple regression and correlation, design of samples and experiments, contingency tables, non-parametric techniques. *Prerequisite:* 69.202.

69.390 Independent Reading Course in Mathematics (Quarter-course to double course)

See page 32.

69.400 Managerial Statistics (Course)

Frequency distributions; averages; dispersion; probability; making decisions under uncertainty; inferences about means; proportions, and differences; simple and multiple regression. *Prerequisite:* 41.100 or graduate status.

69.490 Independent Study Project in Statistics (Quarter-course to double course)

See page 32.

THEORY OF PROBABILITY AND STATISTICS

Undergraduate students receive one course unit for .500 level courses.

69.502 Introduction to Mathematical Statistics (3) (formerly 69.484)

Probability, probability distributions, sampling, sampling distributions, introduction to the theory of point estimation and statistical inference including confidence intervals and hypothesis testing. *Prerequisites:* 41.223 or equivalent. (Not open for credit to graduate students in mathematics or statistics.)

69.510-511 Theory of Sampling I and II (3,3)

Mathematical development of basic principles of survey design including methods for determining expected value, bias, variance and mean square error; simple random, systematic, stratified, cluster, multistage, and double sampling; unbiased, ratio, regression, and composite estimation; optimum allocation of resources; controlled and other non-simple methods of selection; introduction to measurement error; comparison of alternative designs. *Prerequisites:* 41.223, 69.502 or equivalent.

69.530-531 Mathematical Statistics I,II (3,3) (formerly 69.500-501)

Distribution of random variables and functions of random vari-

ables, generating functions, order statistics, point estimation, maximum likelihood, confidence intervals, tests of hypotheses (Neyman-Pearson, likelihood ratio, etc.), linear regression, analysis of variance. Fall, spring. *Prerequisites:* 41.322, 69.502 or equivalent, 41.510 (may be concurrent with 69.531).

41.574-575 Theory of Probability I and II (3,3)

Measure theory, Lebesgue integral, random variables, distribution functions, generating and characteristic functions, special distributions and statistics, limit theorems. Fall, spring. *Prerequisites:* 41.322 corequisite 41.570, and 41.474 or permission.

69.584 Introduction to Stochastic Processes (3)

An introduction to random walks, Markov chains and processes, Poisson processes, recurrent events, birth and death processes and related topics. Spring. *Prerequisite:* 41.574 or equivalent.

69.590 Independent Reading Course in Statistics (1-6)

See page 32.

69.600-601 Advanced Mathematical Statistics I,II (3,3)

General decision theory, including Bayesian; theory of estimation, properties of estimators, inequalities, hypothesis testing, sequential analysis, distribution free techniques, large sample properties, contingency tables, correlation. Fall, spring. *Prerequisites:* 69.531, 41.574 (may be taken concurrently).

69.604-605 Statistical Decision Theory I and II (3,3)

Convex sets and functions; minimax theorem; statistical games; utility and principles of choice; strategies; complete classes; Bayes procedures; principles of invariance; sequential procedures; related topics. Every third year, beginning 1972-73. *Prerequisite:* 69.600 (may be taken concurrently).

69.610-611 Statistical Inference I and II (3,3)

Advanced topics in the theory of estimation and testing hypotheses. *Prerequisite:* 69.600 (may be taken concurrently).

69.620-621 Multivariate Analysis I and II (3,3)

Multivariate normal distribution, Hotelling's T; Wilks' likelihood ratio criterion; other test statistics; classification problems; principal components; canonical correlation; general multivariate regression and experimental designs; related topics. 1973-74. *Prerequisites:* 41.510; 69.600 (may be taken concurrently).

69.670-671 Linear Estimation I and II (3,3)

General linear hypothesis; least squares estimation; Gauss-Markov theorem; regression; analysis of variance; multiple comparisons; analysis of covariance; factorial designs; randomized blocks; other experimental designs; effects of departures from assumptions. 1973-74 and alternate years. *Prerequisites:* 41.510; 69.600 (may be taken concurrently).

69.674-675 Advanced Probability and Stochastic Processes I, II (3,3)

Limit theorems; infinitely divisible distributions; conditioning;

martingales; Markov processes, normal processes, stationary processes, related topics. 1971-72 and every third year. *Prerequisites:* 41.575, 69.584.

69.690 Independent Study Project in Statistics (1-6)

See page 32.

69.790 Seminar in Statistical Theory and Probability (3)

Advanced topics will be considered according to the needs of the students. *Prerequisites:* 69.600-601.

STATISTICAL METHODOLOGY COURSES

69.514 Methodology: General (3)

Averages, dispersion, probability, sampling, approach to normality; simple and multiple regression; tests and confidence intervals for means, proportions, differences, regression coefficients; nonparametric statistics; analysis of variance. *Prerequisite:* 69.202 or equivalent.

69.515 Methodology: Regression (3)

Simple and multiple regression; least squares; curve fitting; graphic techniques; tests and confidence intervals for regression coefficients. *Prerequisite:* 69.514 or equivalent.

69.516 Methodology: Design of Experiments (3)

Designing and analyzing results of balanced experiments; simple analysis of variance; components of variance; analysis of covariance; related topics. *Prerequisite:* 69.514 or equivalent.

69.517 Methodology: Sampling (3)

Sampling principles; stratification; alternative methods of selection and estimation; comparisons of accuracy, precision, and cost. Applications; auditing, acceptance inspection, market research, and personnel administration. *Prerequisite:* 69.514 or equivalent.

69.518 Methodology: Psychological Statistics (3)

Methods appropriate for analyzing data of psychological research; validity and reliability; regression; analysis of variance and covariance; interval estimates and significance tests; related topics. *Prerequisite:* 69.301 or 69.514.

69.519 Methodology: Non-Parametric Statistics

Application of non-parametric techniques in the analysis of social science data with emphasis on tests appropriate for data having interval, nominal, and ordinal scales. *Prerequisite:* 69.514 or permission.

COMPUTER SCIENCE COURSES

41.160 Basic Computing (Course)

Introduction to programming; laboratory experience with computers; emphasis on use of computers as tools in areas of the

student's concentration. The language used is BASIC. *Prerequisites:* 41.100 or three years of high school mathematics. (Not intended for Computer Science majors.)

41.166 Social and Cultural Implications of Computers (Course)

Describes the history of the digital computer and its growing use in Western society. Academic, industrial, and governmental applications are examined. The potential benefits and risks involved in the penetration by the computer into all aspects of society are discussed. Students are required to prepare bibliographies and term papers on a particular aspect of computers in a field of interest to them. (Not intended for Computer Science majors).

41.260 Introduction to Computing (Course)

A First course, intended to teach the student to use computers in solving problems. *Prerequisite:* for further work in computer science, but also useful in other fields. Algorithms, flow charting, practice in FORTRAN programming. *Prerequisites:* 41.100 or three years of high school mathematics.

41.261 Computers and Programming (Course)

Provides a unified view of the inter-relationships between digital system design, computer organization, and assembly-language programming techniques. The logical equivalence of hardware and software is emphasized through the concept that an algorithm can be carried out by either a special purpose digital network or a computer program. *Prerequisite:* 41.260 or consent of instructor.

41.360 Introduction to Discrete Structures (Course)

Student is introduced to those fundamental algebraic, logical and combinatoric concepts from mathematics needed in subsequent computer science courses, and shows the applications of these concepts to problem solving and to various areas of computer science. *Prerequisite:* 41.111 and 41.261

41.460 Introduction to Numerical Methods (Course)

Introduction to numerical algorithms fundamental to scientific computation. Includes elementary discussion of error, solution of polynomial equations and solution of systems of algebraic equations. *Prerequisites:* 41.261 and 41.223.

41.461 Mathematical Principles of Computing (Course)

Finite automata and their expression by means of neural nets; relation of finite automata to computing machines. Turing machines and recursive functions; universal Turing machines and decidability; automata and formal languages. *Prerequisites:* 41.222 and 41.261.

41.530 Organization of Computer Files (3)

Intended to acquaint student with modern techniques of file organization and management. Applications of these techniques to representative problems will be treated. *Prerequisite:* 41.360 or equivalent.

41.566 Introduction to Compilers (3)

This course emphasizes the techniques involved in the analysis of course languages and the generation of efficient object code. It has the practical objective of teaching the student how compilers may be constructed. *Prerequisite:* 41.360 or equivalent.

41.568 Seminar in Computer Science (3)

Special topics are selected from among such areas as programming languages, automata theory, artificial intelligence and computational linguistics. *Prerequisite:* 41.360.

Music

HISTORY AND LITERATURE

43.100 Music Theory for Non-Music Majors (Course)

Development of listening techniques based on an understanding of the functional role of the elements in the organization of music.

43.101 Survey of Musical Styles (Course)

Representative compositions and composers from the Middle Ages to the 20th century, compared and evaluated with an historical and cultural context. *Prerequisite:* 43.100.

43.102 Selected Topics (Course)

Study of a pre-selected area such as orchestral music, chamber music, opera, American music, folk music, 20th century music, etc. May be repeated for credit if no duplication of topic is involved. *Prerequisite:* 43.100.

43.103 The Evolution of Jazz and Rock (Course)

Cultural sources and growth of divergent stylistic characteristics of jazz and rock through past one hundred years.

43.106 African Music (Course)

Music of several major areas of Africa (including such areas of Uganda, Ghana, Nigeria, Kenya, and the Congo) and its subsequent influence on Black American music. *Prerequisite:* none.

43.300 History of Music I (Course)

Music in Western civilization from ancient times to the 17th century, including a brief survey of primitive and oriental music. Illustrated with slides and recordings. *Prerequisite:* one year (preferably two) of music theory, or permission of the instructor.

43.301 History of Music II (Course)

Music in Western civilization from the 18th century to the present. Illustrated with slides and recordings. *Prerequisite:* 43.300 or permission of the instructor.

43.390 Independent Reading Course in Music (Quarter-course to double course)

See page 32.

43.490 Independent Study Project in Music (Quarter-course to double course)

See page 32.

THEORY

43.104 Theory I (Course)

Comprehensive study of scales, modes, rhythm, instruments, and notational practices from the Middle Ages to the present. Basic general concepts of rhythm, melody, harmony, counterpoint, and form studies in the context of developing ear and sight reading proficiency.

43.105 Theory II (Course)

Line, rhythm, notation, form and vertical relationships as practiced in Medieval music. Literature and style analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.104.

43.204 Theory III (Course)

Study of 15th and 16th century style and theory by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.105.

43.205 Theory IV (Course)

Baroque style and theory, by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.204.

43.302 Ear Training and Sight Reading (Course)

An intensive course in aural development and sight reading proficiency which may be extended over a three year period. Students may complete course requirements as they individually achieve the required levels of proficiency. *Prerequisite:* open only to music majors.

43.304 Theory V (Course)

Music of classic and romantic periods studied by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.205.

43.305 Theory VI (Course)

Diverse styles and theoretical attitudes of the 20th century, by analysis, composition, sight reading and aural dictation. *Prerequisite:* 43.304.

43.306 Conducting I (Half-course)

Practical study of basic conducting technique; emphasis on choral conducting. *Prerequisite:* 43.205 or permission of instructor.

43.307 Conducting II (Half-course)

Orchestral and band conducting; score reading and interpretation. *Prerequisite:* 43.306.

43.311 Orchestration (Half-course)

Scoring for various chamber ensembles and full orchestra. Analysis of orchestration practice of composers from classic era to present. *Prerequisite:* 43.205 or permission of instructor.

43.312 Keyboard Harmony I (Half-course)

Keyboard practice of chord progressions in four parts; cadence patterns; simple melodic harmonization; harmonic sequences. *Prerequisite:* 43.205 or permission of instructor.

43.313 Keyboard Harmony II (Half-course)

Continuation of 43.312; modulation and transposition; special projects for individual needs. *Prerequisite:* 43.312.

43.315 Composition I (Course)

Individually supervised practice in writing short compositions in specified small forms. *Prerequisite:* 43.205.

43.316 Composition II (Course)

Continuation of 43.315; assignments adapted to individual needs and talents of students. *Prerequisite:* 43.315.

MUSIC EDUCATION

43.140 Introduction to Music Education (Half-course)

Philosophical, psychological, and sociological bases of music education, with emphasis on music in the elementary and secondary schools. Examination of current practice through observation trips to area schools. *Prerequisite:* Interest in music education

43.353 Music for Elementary School Teachers (Course)

Technical background and methods of presentation for the elementary classroom teacher to use in teaching music. Primarily for elementary education majors; students majoring in music may not include this course as credit toward a degree. *Prerequisite:* 43.100 or the equivalent.

43.360 Instrumental Music in the Elementary and Secondary School (Course)

Practical application of theoretical concepts in the planning and presentation of instrumental music. Examination and development of materials, classroom management and control. Observation trips to area schools. *Prerequisite:* 43.140

43.361 General Music in the Elementary School (Course)

Study and development of materials and methods used by the elementary classroom music specialist. Observation in area schools. *Prerequisite:* 43.140.

43.362 Vocal Music in the Secondary School (Course)

Vocal and choral techniques in the junior and senior high school. Study and development of methods and materials. Rehearsal management and organization of the choral music program. *Prerequisite:* 43.140

43.363 General Music in the Secondary Schools (Half-course)

Teaching music to the adolescent in the junior and senior high school general music class. *Prerequisite:* 43.140

APPLIED MUSIC

43.113 Class Guitar I (Quarter-course)

Beginning study of classic guitar in preparation for private study.

43.114 Class Guitar II (Quarter-course)

Continuation of Class Guitar I. *Prerequisite:* 43.113 or audition.

43.115 Class Piano I (Quarter-course)

Beginning piano study directed toward satisfaction of the department's minimal piano requirements.

43.116 Class Piano II (Quarter-course)

Continuation of basic piano skills begun in Class Piano I, necessary for entrance into 43.312 Keyboard Harmony, and private piano study. *Prerequisite:* 43.115.

43.117 Class Voice I (Quarter-course)

Beginning voice study directed toward satisfaction of the minimal voice requirements in music education.

43.118 Class Voice II (Quarter-course)

Application of basic principles of correct use of the singing voice to the study of good song literature. *Prerequisite:* 43.117.

43.150 Class Instrumental Study (Quarter Course)

Beginning study of an announced area (e.g. brass, woodwinds, strings, or percussion) and a pre-selected instrument within that area. Fundamentals of playing, principles of pedagogy, and methods and materials. May be repeated for credit on another instrument. *Prerequisite:* permission of instructor.

43.152 University Chorale (Quarter-course)

Prepares and presents major works of choral literature. *Prerequisite:* audition.

43.153 University Singers (One course for the year)

A small, highly select traveling choral ensemble which presents both sacred and secular programs. *Prerequisite:* audition.

43.154 University Orchestra (Quarter-course)

Concerts, sight-reading, study of selected compositions. Open to all students, faculty, and staff. *Prerequisite:* permission of instructor.

43.155 Instrumental Ensembles (Quarter Course)

Symphonic band, wind ensembles, and a jazz workshop. Open to students, faculty, and staff. *Prerequisite:* Permission of instructor.

Applied Music (Private Study)

All undergraduate courses in applied music may be repeated for credit. Fees are in addition to tuition. For regulation regarding applied music (levels of achievement, juries, attendance at recitals, etc.), see the departmental *Applied Music Handbook*. Enrollment in all courses listed under applied music must be approved by the department. The student is required to show written permission at registration.

44.121 Private Instrumental or Vocal Study (Quarter-course)

Limited to students not majoring in music or music majors on

secondary instruments. *Prerequisite:* 43.114 for guitar, 43.116 for piano, 43.118 for voice, 43.149 for brass instruments, 43.150 for bowed string instruments, 43.151 for woodwind instruments; or the equivalent. Fee, \$50.

44.122 Private Instrumental or Vocal Study (Half-course)

Limited to students not majoring in music. *Prerequisite:* see 44.121. Fee, \$100.

44.131 Private Instrumental or Vocal Study (Quarter-course)

Limited to students majoring in music. *Prerequisite:* see 44.121. Fee, \$30.

44.132 Private Instrumental or Vocal Study (Half-course)

Limited to students majoring in music. *Prerequisite:* see 44.121. Fee, \$60.

44.334 Private Instrumental or Vocal Study (Course)

Enrollment limited. Recital required. *Prerequisite:* audition and permission of department chairman. Fee, \$60.

44.434 Private Instrumental or Vocal Study (Course)

Enrollment limited. Recital Required. *Prerequisite:* audition and permission of department chairman. Fee, \$60.

Advanced Courses

Undergraduate students enrolled in .500 level courses will receive quarter, half, or full-course credit.

HISTORY AND LITERATURE**43.500 Music of the Baroque Era (3)**

Advanced study of European music of the 17th and early 18th centuries. Comprehensive coverage of styles and forms. Illustrated with slides and recordings. *Prerequisite:* 43.300-301 or the equivalent.

43.501 Music of the Classic Era (3)

Growth of new idioms and forms from the early 18th to the early 19th century. Illustrated with slides and recordings. *Prerequisite:* 43.301 or the equivalent.

43.502 Music of the Romantic Period (3)

Historical and cultural background; intensive study of the composers and works of the period; emphasis on individual styles; nationalism, program music. *Prerequisite:* 43.301.

43.503 Music of Twentieth Century (3)

Chronological survey of musical styles and ideas from 1900 to the present, with emphasis on a few selected composers. Illustrated with slides and recordings. *Prerequisite:* 43.301 or the equivalent.

43.504 Studies in Music Literature (3)

Survey of a pre-selected area, such as chamber music, orchestral music, keyboard music, choral music, etc. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.301 or concurrent registration.

43.505 Studies in Music History (3)

History of a pre-selected area, such as opera, music theory, musical instruments, etc. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.301 or concurrent registration.

43.510 Introduction to Musicology (3)

Methods and tools of research. Class project, oral report, written paper. Transcription of vocal notations and instrumental tablatures. Survey of scholarly editions, periodicals, and reference works in the major European languages. *Prerequisite:* 43.300-301 or the equivalent.

43.555 Chamber Ensembles (1)

Performance in particular areas of music literature by small, select groups, including the following: (a) *Collegium Musicum*. Vocal and instrumental sections. Emphasis on Baroque, Renaissance, and Medieval music, using departmental collection of lutes, viols, recorders, cromornes, cornetti, sackbuts, harpsichords, etc. May be taken four times for credit by graduate students, who are expected to edit and/or direct music as well as perform. (b) *Operetta Workshop*. A practicum workshop of operetta and musical-comedy scenes, culminating in one or more performances of the music covered during the semester. (c) *String Ensembles*. Advanced string chamber-music ensembles, preparing for performance a varied literature. *Prerequisite* for all ensembles: Audition.

43.570 Music in Worship (3)

Historical survey of music on both fixed and free liturgies. *Prerequisite:* 43.301.

43.590 Independent Reading Course in Music (1-6)

See page 32.

43.670 Seminar in Church Music (3)

Studies in pre-selected areas of church music. May be repeated for credit if no duplication is involved. *Prerequisite:* 43.570 or concurrent registration.

43.680 Medieval Music (3)

Advanced study of European music from the early Christian era to the beginning of the 15th century. Emphasis on stylistic and notational problems, primary sources, bibliography. Illustrated with slides and recordings. Written paper, taped listening assignments. *Prerequisite:* 43.300 or the equivalent.

43.690 Independent Study Project in Music (1-6)

See page 32.

43.701 Renaissance Music (3)

Comprehensive survey of European music of the 15th and 16th centuries. Emphasis on stylistic innovations, primary sources, bibliography. *Prerequisite:* 43.300 or the equivalent.

43.702 Musicology Seminar (3)

Advanced study in pre-selected areas, such as performance

practices, early notation, the Italian madrigal, etc. May be repeated for credit if no duplication is involved. *Prerequisite:* 43.510 or the equivalent.

43.797 Master's Thesis Seminar (3-6)

Prerequisite: 43.703 for Composition majors; 43.540 for music education majors (instrumental or vocal); 43.510 for all other students; plus permission of department chairman.

THEORY**43.507 Studies in Music Theory (3)**

Studies in depth in specific areas of theoretical concern, such as fugue; electronic music; chance vs. control as compositional principles; and techniques of variation. May be repeated for credit if no content duplication is involved. *Prerequisite:* 43.305.

43.515 Advanced Conducting (3)

Conductor's role in the preparation and presentation of the more complex masterworks. Students will be expected to participate in laboratory conducting experiences. May be repeated for credit. *Prerequisites:* 43.306 and 43.307 or the equivalent.

43.700 Analytical Studies (3)

Analysis of specified works, composers, styles, idioms, forms. Period covered is announced in semester bulletins. May be repeated for credit. *Prerequisite:* 43.305.

43.703 Advanced Composition (3)

Guidance in writing large forms and in experimental idioms. Assignments adapted to individual needs, interests, and talents. May be repeated for credit. *Prerequisite:* 43.316 or permission of the instructor.

43.704 Twentieth-Century Counterpoint (3)

Study of important contrapuntal styles of the past 70 years through analysis. Practical creative writing problems in each style studied. *Prerequisite:* 43.305.

MUSIC EDUCATION**43.540 Introduction to Graduate Study in Music Education (3)**

Research techniques and materials designed to acquaint the practicing music educator with useful findings and applicable methods. Bibliography and library resources.

43.561 Music Education Seminar (Vocal, General, Instrumental) (3)

Advanced study of a specific, pre-selected area in music education. *Prerequisite:* 43.360 or 43.361-362, as applicable.

43.740 Supervision and Administration of Music Education (3)

Nature and scope of supervision, supervisory relationships, procedures and techniques; organization and improvement of music curricula, administration of music programs and development of evaluative criteria.

43.760 History and Philosophy of Music Education (3)

Survey of the philosophy and practice of music teaching since ancient times, with emphasis on the development of music education in the United States.

APPLIED MUSIC

44.531 Private Instrumental or Vocal Study (1)

Directed at the non-performance major. Admission is predicated on completion of the second year of undergraduate applied music major requirements and audition. Fee: \$50.

44.532 Private Instrumental or Vocal Study (2)

Directed at the non-performance major. Admission is predicated on completion of the second year of undergraduate applied music major requirements and audition. Fee: \$100.

44.534 Service Playing and Improvisation (2)

Techniques of score reading, service playing, improvisation, realizing figured bass, and directing from the console. *Prerequisites:* 43.313 Keyboard Harmony II and senior-level ability in organ playing, as indicated in the department *Applied Music Handbook*.

43.550 Pedagogy I

Seminar to explore concepts of vocal and instrumental performance and their application to teaching in the private studio. *Prerequisite:* permission of instructor.

43.551 Pedagogy II (2)

Survey of literature and the teaching of instrumental and vocal techniques.

43.552 Internship in Music (3)

Practical professional experience for selected students who work with a cooperating agency directly in their professional field under faculty guidance and supervision. *Prerequisite:* permission of department chairman.

44.791 Private Instrumental or Vocal Study (1)

May be repeated up to six hours by a master's degree candidate in performance. Others limited to four hours. *Prerequisites:* 44.432 or equivalent and written permission of the department. Fee, \$50.

44.792 Private Instrumental or Vocal Study (2)

May be repeated up to six hours by a master's degree candidate in performance. Others limited to four hours. *Prerequisites:* 44.432 or equivalent and written permission from the department. Fee, \$100.

46.201 Nursing II (Double-course)

Exploration of selected health problems of adults undergoing medical or surgical therapy. Man's adaptive capacity, his homeostatic mechanisms, and relevant pathophysiology are discussed. Utilization of the nursing process in administering care to adults is emphasized. *Prerequisite:* 46.200.

46.300 Nursing III (Triple-course)

Continuation of 46.201. Care of patients whose needs are complicated by disease and who are treated medically and/or surgically. Special consideration to the nurse's role in relation to the total plan of care. Six hours of class, twelve hours of laboratory, one hour of conference. *Prerequisites:* 46.200, 46.201, 46.440.

46.310 Maternal-Child Nursing (Triple-Course)

Principles of growth and development; the family as a unit emphasized in caring for mothers during the maternity cycle and for sick children from birth through adolescence. Six hours of class. 16 hours of laboratory. *Prerequisites:* 46.200, 46.201, 46.300, 46.440, 57.400.

46.340 Psychiatric Nursing (Double-course)

Nursing care of the mentally ill in the hospital and community. Includes care of patients individually and in groups, in acute and chronic stages of mental illness. Each week three hours of class, eight hours of laboratory and scheduled community mental health lecture-discussion and independent study activities are required. *Prerequisite:* senior standing.

46.390 Readings in Nursing (Quarter Course to Double Course)

46.400 Community Health in Nursing (Double-course)

Community health concepts based on previous knowledge and experience. Emphasis on the role of the nurse in community health programs. Each week eight hours laboratory and three hours class are required. In addition there is scheduled community mental health lecture-discussion and independent study activities. *Prerequisite:* senior standing.

46.410 Problem Analysis in Patient Care (Course)

Problems of patients with complex nursing needs. Students assume increased responsibility for nursing care to meet these needs. Lab experiences primarily in intensive care settings. *Prerequisite:* second semester senior standing.

46.420 Organization of Patient Care Services (Course)

Principles of leadership and group dynamics in the organization of patient care in working with professional and auxiliary personnel. *Prerequisite:* senior standing.

46.430 History and Analysis of Nursing (Course)

Major developments in the history of nursing; current problems and trends; professional organizations and legislation.

46.440 Individual and Group Dynamics (Half-course)

Seminar focusing on normal personality development. Group

NURSING

46.200 Nursing I (Double-course)

Health needs, assessment of nursing needs, and clinical practice in meeting uncomplicated needs of selected patients. Class meets for five class hours, eight clinical hours, and one conference hour each week. *Prerequisite:* sophomore standing, open only to nursing majors.

process focused on through work in small groups. Taught concurrently with 46.201 and whenever possible correlated with it. Two hours of seminar and two hours of laboratory. *Prerequisite:* 46.200.

46.490 Independent Project in Nursing (Quarter Course to Double Course)

Philosophy and Religion

PHILOSOPHY

47.100 Logic and the Scientific Method (Course)

The nature of valid inference and its relation to the scientific method. Principles of inductive and deductive reasoning.

47.101 Introduction to Philosophy (Course)

Questions man has asked of himself, the world, and the origin, purpose and destiny of life; representative answers given by the great thinkers.

47.102 Philosophies Men Live By (Course)

Selected philosophers in the history of Western thought; their relevance to human existence.

47.300 History of Philosophy: Ancient and Medieval (Course)

History of western philosophy from earliest period through 16th century. Understanding the various philosophers in terms of general cultural milieu. History of philosophy during this period interpreted in terms of formation of classical world-view and the accommodation of this world picture to requirements of Judaism, Christianity, and Islam. No previous philosophic training assumed and non-philosophy majors are encouraged to correlate history of philosophy with historical aspects of their own discipline. Not open to freshmen.

47.301 History of Philosophy: Modern (Course)

Close textual study of chief 17th- and 18th-century European philosophers. Class work directed mainly toward exposing philosophic arguments to critical examination and secondarily toward exhibiting view in historical context. No philosophic training on the part of student is presupposed.

47.302 History of Philosophy: Recent (Course)

Philosophers from Hegel to contemporary existentialism and linguistic analysis. Not open to freshmen.

47.303 American Philosophy (Course)

Backgrounds and substance of American Philosophy since co-

lonial times. Role of philosophical ideas. European and indigenous, in the growth of the American culture. *Prerequisite:* one course in philosophy.

47.305 Philosophies of the East (Course)

Systems of thought in the East from ancient to modern times. Special emphasis upon philosophies of Confucianism, Taoism, Hinduism, and Buddhism.

47.310 Ethics (Course)

Inquiry into the principles of moral evaluation, their relation to factual judgment and individual and social behavior. Evaluation of traditional schools and theories of ethics. *Prerequisite:* one course in philosophy.

47.311 Aesthetics (Course)

Nature of beauty and the relation of the philosophy of the beautiful to fine arts and human experience. *Prerequisite:* one course in philosophy.

47.390 Independent Reading Course in Philosophy (Quarter-course to double course)

See page 32.

47.490 Independent Study Project in Philosophy (Quarter-course to double course)

See page 32.

Advanced Courses

Undergraduate students enrolled in .500 level courses will receive one course unit.

47.500 Studies in Major Philosophers (3)

Reading and analysis of leading historical philosophers. For fall 1972: Aristotle. For spring 1973: Early Modern Rationalism. *Prerequisite:* three courses in philosophy or permission.

47.502 Studies of Recent Philosophers (3)

Reading and analysis of selected philosophers since Hegel as the background of contemporary philosophical movements. For fall 1972: Nietzsche. For spring 1973: Bradley, Bosanquet, Royce and Blanshard. *Prerequisite:* three courses in philosophy or permission.

47.504 Contemporary Philosophy (3)

Study of a leading contemporary movement in philosophy. For fall 1972: German Existentialism. For spring 1973: French Existentialism. *Prerequisite:* three courses in philosophy or permission.

47.506 Selected Topics in Philosophical Analysis (3)

Selected issues in philosophy. For fall 1972: Meaning and Meaningfulness; Observation in the Social Sciences. For spring 1973: Action and Will; Philosophy of Mind and Action. *Prerequisite:* three courses in philosophy or permission.

47.508 Philosophy of Religion (3)

Study of a leading contemporary movement in philosophy of religion. *Prerequisite*: three courses in philosophy or permission.

47.520 Symbolic Logic (3)

Analysis of the development and use of symbolism in modern logic and its relevance to the clarification of logical problems. *Prerequisite*: 47.100.

47.521 Logical Analysis (3)

Application of logical theory to philosophical discourse. *Prerequisite*: 47.520.

47.525 Philosophy of Science (3)

Relationship of modern philosophy to the findings of modern science. For fall 1972: Philosophy of the Social Sciences. *Prerequisite*: 47.100.

47.530 Social Philosophy (3)

Leading proposals regarding the philosophical foundation of modern culture and society. *Prerequisite*: three courses in philosophy or permission.

47.590 Independent Reading Course in Philosophy (1-6)

See page 32.

47.690 Independent Study Project in Philosophy (1-6)

See page 32.

47.702 Graduate Seminar in Philosophy (3-12)

Intensive study of selected philosophical problems. *Prerequisite*: four courses in philosophy.

Topics:

History of Philosophy	Value Theory
Metaphysics	Philosophy of Religion
Logic	Social Philosophy
Epistemology	Eastern Philosophy
Philosophy of Science	

47.797 Master's Thesis Seminar (3-6)

Directed research of M.A. thesis proposal. *Prerequisite*: permission.

47.799 Doctoral Dissertation Seminar (3-24)

Directed research of Ph.D. dissertation proposal. *Prerequisite*: permission.

RELIGION

Biblical Study

47.150 Introduction to the Old Testament (Course)

Emphasis upon the substantive content of the Old Testament, with special attention paid to the historical and cultural background of the text.

47.170 Introduction to the New Testament (Course)

Literary, historical and theological study of the New Testament with particular attention upon Jesus, Paul and the development of the Christian movement.

Religious Thought

47.180 Introduction to Religious Thought (Course)

Investigation of nature of religion and of essentially religious concepts as they relate to problems of religion and society, man's nature and destiny, his quest for wholeness, modern man and problem of transcendence.

47.370 The Religious Heritage of the West (Course)

Consideration of contribution of Western religious heritage to developing ethos of Western man, from Mesopotamian, Greek, and Jewish roots through rise of Christianity and Islam to Middle Ages, Reformation, and beginnings of the modern secularization process.

47.374 Topics in Contemporary Religious Discussion (Course)

For fall 1972: The Prophets; Judaism

For spring 1973: The Wisdom Literature. *Prerequisite*: one course in philosophy or religion or permission.

47.380 Psychology of Religion (Course)

Psychological appraisal of religious experience, prayer, worship, belief, interpersonal relationships, religious practices and behavior.

47.390 Independent Reading Course in Religion (Quarter course-to double course)

See page 32.

History of Religion

47.383 Comparative Religion (Course)

Synoptic study of the world's living non-Western religions, their founders, literature, teachings and values. Course includes films, slide lectures and occasional field trips.

47.394 Post-Biblical Judaism (Course)

Judaism from the Maccabean period to the present. Selected philosophical, theological, institutional movements in Jewish faith and practice. *Prerequisite*: 47.150.

47.490 Independent Study Project in Religion (Quarter course to double course)

See page 32.

Advanced Courses

Undergraduate students enrolled in .500-level courses will receive one course unit.

- 47.550 Studies in Non-Christian Religions (3)**
Theology and literature of non-Christian religious movements. For fall 1972: Hinduism. For spring 1973: Buddhism; New Religious Movements of Asia. *Prerequisite:* 47.305 or 47.383.
- 47.560 Selected Biblical Studies (3)**
For Fall 1972: Jesus and the Gospels. *Prerequisite:* 47.150 or 47.170 or 47.180 or 47.370. For Spring 1973: Paul and the Spread of Earliest Christianity. *Prerequisite:* 47.170 or 47.370.
- 47.570 Problems of Religious Thought (3)**
Examination of basic problems and issues in religious thought, both classical and contemporary. *Prerequisite:* Two courses in philosophy and/or religion.
- 47.590 Independent Reading Course in Religion (1-6)**
See page 32.
- 47.690 Independent Reading Course in Religion (1-6)**
See page 32.
- 47.797 Master's Thesis Seminar (3-6)**
Directed research of M.A. thesis proposal. *Prerequisite:* permission.

Physical Education

Undergraduate Courses

- 49.100 Swimming I (Half-course)**
Development of basic skills and personal safety in swimming.
- 49.101 Swimming II (Half-course)**
Continuation of 49.100. *Prerequisites:* 49.100 or permission of instructor.
- 49.102 Life Saving (Half-course)**
Development of safety skills, use of life saving equipment and techniques of swimming rescues. *Prerequisites:* 49.101 or permission of instructor.
- 49.103 Skin Diving and Survival Swimming (Half-course)**
Basic use of equipment and techniques of underwater photography and spear fishing.
- 49.104 SCUBA (Half-course)**
Techniques in the use of self-contained underwater breathing apparatus. *Prerequisite:* 49.103 or permission of instructor.

- 49.105 Springboard Diving (Half-course)**
Development of beginning and advanced diving skills.
- 49.106 Synchronized Swimming (Half-course)**
Skills and techniques of individual figures, partner stunts and formations; choreography and production of original routines.
- 49.107 Small Craft (Half-course)**
Development of basic skills in small craft handling. *Prerequisite:* permission of instructor.
- 49.108 Water Sports (Half-course)**
Basic skills of water polo, water basketball, and other aquatic sports.
- 49.110 Bowling I (Half-course)**
Development of basic skills in bowling.
- 49.111 Bowling II (Half-course)**
Continuation of 49.110. *Prerequisite:* 49.110 or permission of instructor.
- 49.120 Karate I (Women) (Half-course)**
Development of basic defensive skills of karate.
- 49.121 Karate I (Men) (Half-course)**
Development of basic defensive skills of karate.
- 49.122 Karate II (Women) (Half-course)**
Continuation of 49.120 with an emphasis upon karate as a sport. *Prerequisite:* 49.120 or permission of instructor.
- 49.123 Karate II (Men) (Half-course)**
Continuation of 49.121 with an emphasis upon karate as a sport. *Prerequisite:* 49.121 or permission of instructor.
- 49.124 Wrestling (Half-course)**
Development of wrestling skills.
- 49.130 Modern Dance I (Half-course)**
Development of the ability to communicate through movement.
- 49.131 Modern Dance II (Half-course)**
Continuation of 49.130. *Prerequisite:* 49.130 or permission of instructor.
- 49.132 Folk and Square Dance (Half-course)**
Development of skills and understanding of the dances of various cultures including ethnic dances of this country.

49.140 Fencing I (Half-course)

Development of basic skills of foil fencing.

49.141 Fencing II (Half-course)

Continuation of 49.140 with emphasis upon competition. *Prerequisite:* 49.140 or permission of instructor.

49.150 Golf I (Half-course)

Development of basic skills of golf.

49.151 Golf II (Half-course)

Continuation of 49.150. *Prerequisite:* 49.150 or permission of instructor.

49.160 Trampoline and Free Exercise (Half-course)

Development of basic skills of trampoline, tumbling and free exercise.

49.161 Gymnastics—Apparatus I (Half-course)

Development of basic skills of gymnastic apparatus work.

49.162 Gymnastics—Apparatus II (Half-course)

Continuation of 49.161. *Prerequisite:* 49.161 or permission of instructor.

49.163 Tumbling and Balancing I (Half-course)

Development of basic mat work and balancing skills.

49.164 Tumbling and Balancing II (Half-course)

Continuation of 49.163 with emphasis upon doubles and triples balancing. *Prerequisite:* 49.163 or permission of instructor.

49.170 Recreational Activities (Half-course)

Development of skills of selected individual, dual and team activities with emphasis upon seasonal sports. Content varies. May be repeated for credit.

49.180 Tennis I (Half-course)

Development of basic skills of tennis.

49.181 Tennis II (Half-course)

Continuation of 49.180. *Prerequisite:* 49.180 or permission of instructor.

49.182 Tennis III (Half-course)

Continuation of 49.181. For advanced players. *Prerequisite:* 49.181 or permission of instructor.

49.190 Fitness Workshop (Half-course)

Progression of cardio-vascular build-up and development of skills in a system of physical exercise for bodily control including aerobics and yoga.

49.191 Weight Training (Half-course)

Development of weight training skills.

*Lecture Courses***49.210 Methods and Materials in Physical Education (Course)**

Principles and techniques of instruction applicable to physical education at elementary and secondary school levels. Includes laboratory work.

49.211 Techniques of Hockey / Volleyball (Women) (Half-course) Techniques of Football / Wrestling (Men) (Half-course)

Development of skills, techniques and methods in teaching each sport including rules and team organization.

49.212 Techniques of Soccer / Folk and Square Dancing (Half-course)

Development of skills, techniques and methods in teaching soccer, including rules and team organization, and development of skills, techniques and methods of teaching folk and square dancing.

49.213 Techniques of Basketball / Softball (Women) (Half-course) Techniques of Basketball / Baseball (Men) (Half-course)

Development of skills, techniques and methods of teaching each sport including rules and team organization.

49.214 Techniques of Gymnastics / Track and Field (Half-course)

Development of skills, techniques and methods in teaching each activity.

49.215 Methods of Teaching Swimming (Half-course)

Development of skills, techniques and methods of teaching swimming and coaching. *Prerequisite:* permission of instructor.

49.216 Methods of Teaching Dance (Half-course)

Development of skills, techniques and methods of teaching dance.

49.217 Methods of Teaching Individual, Dual and Recreational Activities (Half-course)

Development of skills, techniques and methods in teaching individual and dual sports and recreational activities. *Prerequisites:* 49.210 or the equivalent and permission of department advisor. May be repeated.

49.218 Techniques of Officiating (Half-course)

Rules and officiating techniques of selected sports. Supervised practice in officiating. May be repeated for credit.

49.221 Foundations and History of Physical Education and Sport (Course)

Introduction to the professions of health education, physical education and recreation. Development, role in general education, and principles guiding the conduct of programs. Historical growth and development of competitive sport; the role of sport in schools and colleges, its trends and problems.

49.230 Workshop in Dance Production (Course)

Development of techniques and the provision of experience in various phases of dance production.

49.235 Advanced Methods of Teaching Modern Dance (Half-course)

Understanding the value of dance education and development of approaches to teaching dance at various age levels.

49.301 Water Safety (Half-course)

Preparation for teaching swimming and diving. Techniques of aquatic safety leading to a Red Cross Water Safety Instructor's Certificate. *Prerequisite:* Senior Life Saving.

49.310 Elementary School Rhythmic Activities (Course)

Survey of materials and methods of teaching fundamental movement rhythms and singing games at the elementary school level.

49.315 Care and Prevention of Athletic Injuries (Course)

Introduction to the basic concepts and techniques in the prevention, treatment and rehabilitation of sports injuries; implications for conducting an adapted physical education program at the secondary school level. Practical application of first aid therapeutic measures.

49.324 Principles and Psychology of Coaching (Course)

Principles and techniques of coaching athletic teams; emphasis on the psychology of teaching and motivating athletes.

49.325 Rhythms and Accompaniment (Course)

Development of an awareness of rhythms and understanding basic elements of time; application to dance composition and accompaniment.

49.326 History and Philosophy of Dance (Course)

An understanding and appreciation of the contribution of dance to the cultural development of mankind.

49.330 Health and Safety (Course)

Fundamentals of health education for the prospective teacher.

49.335 Elementary School Games (Course)

Survey and application of physical education instruction and play activities for elementary school children.

49.340 Camping and Outdoor Education (Course)

Philosophical bases of camp instruction and outdoor education and its implications for the curriculum. Theory and practice of techniques for camping. Field trips and observations arranged.

49.390 Independent Reading Course in Physical Education (Quarter-course to double course)

See page 32.

49.401 Composition of Dance (Course)

Discovery of a rich movement vocabulary and techniques of choreography.

49.421 Organization and Administration of Health, Physical Education and Athletics (Course)

Principles of organizing and administering health, physical education and athletic programs. Consideration of personnel, schedules, equipment, facilities, curriculum, and related problems.

49.424 Kinesiology and Physiology of Exercise (Course)

Mechanical principles as they apply to the performance of motor skills, and physiological changes as they occur in the body during and after activity.

49.490 Independent Study Project in Physical Education (Quarter-course to double course)

See page 32.

Advanced Courses

(.500-level courses open to graduate students and advanced undergraduates; graduate students who enroll in .500-level courses will receive 3 credits; .600-level courses open only to graduate students. Undergraduates will receive one course unit.)

49.500 Measurement and Evaluation in Health and Physical Education (3)

Purposes and principles of measurement and evaluation in health and physical education. Survey of selected tests and basic statistical techniques for interpretation of results.

49.510 Health Education (3)

Survey and interpretation of current trends and thinking in health education.

49.520 Current Problems, Trends and Research in Physical Education (3)

Identification of current problems in the profession and a survey and interpretation of research and trends pertaining to them. Content will vary with each semester. May be repeated for credit.

49.530 Curriculum in Physical Education (3)

Principles and procedures of curriculum development in physical education.

49.550 Recreation Programs (3)

Survey of agencies and programs in the field of recreation with attention to principles and techniques for conducting these programs.

49.590 Independent Reading Course in Physical Education (1-6)

See page 32.

49.601 Workshop in Health, Physical Education and Recreation (3)

Investigation of a specific timely topic in the area of health, physical education or recreation. Content will vary with each semester. May be repeated for credit.

49.610 Planning Facilities for Health, Physical Education and Recreation (3)

Principles, criteria, and standards used in planning facilities for health, physical education and recreation.

49.620 Philosophy of Physical Education (3)

Exploration in depth of the electric rationale of physical education.

49.690 Independent Study Project in Physical Education (1-6)

See page 32.

Physics

51.101 Sound, Light, and the Arts (Course)

Sound and hearing; music: traditional, electronic and rock; light and vision; color, images, the eye and the camera; recording and reproduction of sound and light; the broadcast media. *Prerequisite:* a lively curiosity.

51.102 Science, Culture, and Life Styles (Course)

The impact of science on society and life styles since the time of the Industrial Revolution. Topics will include: Darwin, Marx, Freud and the changes in man's sense of identity. Technological change, urbanization and alienation. The advance into the atomic age; nuclear war and nihilism. The case for balance and the adaption of science to man rather than the reverse. *Prerequisite:* a lively concern.

51.103 Science, and Public Policy (Course)

Authoritarianism (religion and "communism") vs. science; Ei-

stein, A-bombs and NASA; population, pollution and politics; public health and morals, birth control, abortion, artificial insemination and eugenics; XYY, organ transplants and drugs; electronic surveillance and rights of privacy; computers and data banks; traffic.

51.106 Astronomy (Course)

How big is the universe? What is in it? How old is it and how long will it endure? Is there (other) intelligent life in space? A non-mathematical discussion of relativity theory, normal stars, pulsars, black holes. Space travel and contact among galactic civilizations. *Prerequisite:* a lively curiosity.

51.200 Physics as Natural Philosophy (Course)

The world view of the scientist: a look at galaxies, atoms, and life the way they are understood today. The vital ideas of physics, chemistry, and biology, together with ideas about ideas—how we know things. *Prerequisite:* a lively curiosity.

51.204 Population, Resources, and the Environment (Course)

Population growth; models of population evolution; energy resources: fossil fuels, nuclear fission and fusion power, and solar energy; air and water resources; climate alterations planned and unplanned; food resources: the "green revolution," food from the sea, pesticides and fertilizers. *Prerequisite:* a lively concern.

51.205 Arms Control, Politics and Science (Course)

The military, technology and national security—a historic view; nuclear and thermonuclear weapons; the cold war and the strategic arms race; LTBT treaty, a case study; the present controversy on ABM and MIRV systems; SALT; the political and economic aspects of armament and disarmament. *Prerequisite:* a lively concern.

51.207 Science and the Economic Future (Course)

The interaction of science, technology and economics in the decision-making process. Economic constraints on technological progress and their impact on the environment. The earth as a closed system: population, food, energy, natural resources and pollution, and their implication for economic development. Future of the U.S.A., underdeveloped countries and the question of zero growth.

51.210 Concepts in Physics (Course)

A non-mathematical presentation of the basic concepts of physics and related technological developments relevant to various areas of everyday life. *Prerequisite:* a lively curiosity.

51.220 Introduction to Physics I (Course)

Basic physical concepts in the structure of matter and the macroscopic world; mechanics and electricity, atomic physics, waves and oscillations, molecules and heat. *Prerequisite:* 41.110 or concurrent registration.

51.221 Introduction to Physics II (Course)

Basic physical concepts in the structure of matter and the macroscopic world; electromagnetism, light, relativity, nuclear physics, structure of solids. *Prerequisites:* 51.220; 41.111 or concurrent registration.

51.222 Open Laboratory in Physics I (Half-course)

Selected experiments to accompany 51.220. Experiments partially selected according to the student's interest and performed weekly at a time convenient to the student, during the open hours of the laboratory. *Prerequisite:* 51.220 or concurrent registration.

51.223 Open Laboratory in Physics II (Half-course)

Selected experiments to accompany 51.221. Experiments partially selected according to the student's interest and performed weekly at a time convenient to the student, during the open hours of the laboratory. *Prerequisite:* 51.221 or concurrent registration.

51.330 Basic Concepts in Mechanics (Course)

Vector analysis. Newton's laws and the dynamics of a particle. The harmonic oscillator. Conservative systems. Gravitational forces and potential. Central fields and the motions of planets and satellites. *Prerequisites:* 51.221; either 41.111 or 41.222, or concurrent registration.

51.350 Basic Concepts in Electromagnetism (Course)

Electrostatics, potential theory, magnetic fields, Faraday and Ampere's laws, dielectric magnetic media, Maxwell's equations. *Prerequisite:* 51.330 or concurrent registration.

51.370 Basic Concepts in Modern Physics (Course)

Electrons, protons, and the structure of matter, a historic view; the Rutherford-Bohr atom, the elements of quantum mechanics and its application to atomic, nuclear, and solid state physics. *Prerequisite:* 51.330.

51.390 Independent Reading Course in Physics (Quarter-course to double course)

See page 32.

51.452 Advanced Laboratory I (Three-fourths Course)

Selected experiments in electrical measurements and electronics. *Prerequisite:* 51.350 or concurrent registration.

51.453 Advanced Laboratory II (Three-fourths course)

Selected experiments in electronics and modern physics. *Prerequisite:* 51.452.

51.490 Independent Study Project in Physics (Quarter-Course to Double Course)

See page 32.

Advanced Courses

.500-level courses are open to graduate students and advanced undergraduates; .600-level and .700-level courses are open to graduate students. Undergraduates enrolled in .500-level courses will receive one course unit.

51.500 Introduction to Mathematical Physics I (3)

Curvilinear coordinates and tensor analysis, matrix theory; complex functions, contour integrals, and method of residues; method of Frobenius and special functions of mathematical physics. *Prerequisites:* 51.330, 51.350, 41.321.

51.501 Introduction to Mathematical Physics II (3)

Sturm-Liouville theory, the eigenfunction problem, Green's functions, partial differential equations of mathematical physics, Fourier series and transforms, integral equations, group theory. *Prerequisite:* 51.500.

51.531 Waves, Oscillations, and Acoustics (3)

Vibrating systems and dynamical analogies. Solutions of the wave equation in various coordinate systems. Radiation, reflection, refraction and diffraction of waves. Transients and random noise. *Prerequisites:* 51.330, 41.321.

51.551 Electromagnetic Waves and Optics (3)

Maxwell's equations and electromagnetic waves, reflection and refraction, interaction of light with matter, interference phenomena, Huygens-Kirchoff diffraction theory. Fresnel and Fraunhofer diffraction, gratings, optical instruments. *Prerequisite:* 51.350.

51.554 Principles of Electronics (3)

Circuit analysis, circuit theorems, physics of vacuum tubes and transistors, equivalent circuits. Analysis of power supplies, amplifiers and oscillators. Modulation, demodulation and pulse circuits. *Prerequisite:* 51.350.

51.560 Basic Concepts in Thermal Physics (3)

Heat, temperature, the first and second laws of thermodynamics, reversibility, entropy changes, kinetic theory of gases, statistical interpretation of thermodynamics, Maxwell-Boltzmann, Fermi-Dirac, and Bose-Einstein statistics. *Prerequisite:* 51.370.

51.572 Quantum Physics I (3)

Quantum mechanics, perturbation theory, spin, exclusion principle, transition rates, scattering theory, lasers, characteristics of nuclei, nuclear transitions, models, forces and binding energies. *Prerequisite:* 51.370.

51.573 Quantum Physics II (3)

Elementary particles, symmetries, and SU3; weak, electromagnetic and strong interactions. Crystallography, lattices, thermal properties of solids; dielectric and magnetic properties; free electron model and band theory, metals and semiconductors; superconductivity. *Prerequisite:* 51.572.

51.582 Advanced Laboratory III (3)

Selected experiments in atomic physics, optics, electronics, acoustics, and machine shop practice. Three hours of laboratory. *Prerequisite:* 51.453.

51.583 Advanced Laboratory IV (3)

Selected experiments in electronics, optics, atomic and nuclear physics, and machine shop practice. Three hours of laboratory. *Prerequisite:* 51.582.

51.590 Independent Reading Course in Physics (1-6)

See page 32.

51.600 Current Topics I (1)

Selected lectures and activities introducing the graduate student to the departmental programs. Compulsory for all beginning graduate students. May be repeated for credit.

51.601 Current Topics II (1)

Guided readings in the student's area of concentration. Compulsory for all beginning graduate students. May be repeated for credit. *Prerequisite:* 51.600.

51.630 Theoretical Mechanics I (3)

Newtonian mechanics, rigid body dynamics, Lagrangian mechanics and tensor analysis, coupled oscillators and linear vector spaces, mechanics of continuous media. *Prerequisite:* 51.500 or concurrent registration.

51.631 Theoretical Mechanics II (3)

Elasticity, fluid mechanics and acoustics, relativistic mechanics, Hamiltonian mechanics and canonical transformations, Hamilton-Jacobi theory, Lagrangian and Hamiltonian densities. *Prerequisite:* 51.630.

51.650 Electromagnetic Theory I (3)

Electric and magnetic fields, boundary value problems, dielectric and magnetic media, Maxwell's equations, radiation and propagation of electromagnetic waves. *Prerequisite:* 51.501.

51.651 Electromagnetic Theory II (3)

Relativistic formulation of fields and potentials, Lienard-Wiechert potentials, dispersion, scattering, diffraction and physical optics. *Prerequisite:* 51.650.

51.660 Statistical and Thermal Physics I (3)

Review of principles and applications of thermodynamics. Principles of statistical mechanics, method of partition function and applications, method of probability distributions. *Prerequisites:* 51.560; 51.572 or concurrent registration.

51.661 Statistical and Thermal Physics II (3)

Ideal Bose and Fermi systems, applications to liquids and critical point phenomena, Ising and Heisenberg models for magnetism. Non-equilibrium thermodynamics, statistical mechanics, and fluctuations. *Prerequisite:* 51.660.

51.670 Quantum Mechanics I (3)

Experimental background to quantum mechanics, Schrodinger equation, eigenfunctions and eigenvalues, one-dimensional problems; WKB approximations; general principles of wave mechanics; central potentials, hydrogen atom, scattering. *Prerequisites:* 51.501; 51.572 or concurrent registration.

51.671 Quantum Mechanics II (3)

General formalism of quantum theory; angular momentum and spin; identical particles; stationary perturbations, time-dependent perturbation theory, variational method. *Prerequisite:* 51.670.

51.690 Independent Study Project in Physics (1-6)

See page 32.

51.710 Solid State Physics I (3)

Lattice periodicity, Bloch's theorem, lattice vibrations, energy bands, Fermi statistics. Pauli paramagnetism, Hartree and Hartree-Fock equations, screening, plasma oscillations, dielectric function, impurity states. *Prerequisites:* 51.560, 51.573, 51.671.

51.711 Solid State Physics II (3)

Group theory, Boltzman equation, electrical conductivity, Hall effect, magneto-resistance, de Haas-van Alphen oscillations, magnetism, superconductivity. *Prerequisite:* 51.710.

51.712 Solid State Physics III (3)

Second quantization; magnetism; superconductivity; many-body methods; equations of motion, Green's functions, diagrammatic methods, Fermi liquids. *Prerequisite:* 51.711.

51.720 Advanced Quantum Mechanics I (3)

Lorentz group; Dirac and Klein-Gordon equation, Lorentz covariance; S-matrix, propagator theory, Feynman diagrams; applications; formal theory of scattering. *Prerequisite:* 51.671.

51.721 Advanced Quantum Mechanics II (3)

Lagrangian field theory; quantization of free fields, interactions; S-matrix theory, covariant perturbation theory, applications to quantum electrodynamics and meson problems; dispersion relations; renormalization. *Prerequisite:* 51.720.

51.724 Nuclear Theory I (3)

Invariants, the deuteron, nucleon-nucleon problem, effective-range theory, nucleon-electron interaction, nucleon-nucleus interactions at low and high energies, and the electromagnetic interaction including isotopic spin. *Prerequisites:* 51.573, 51.671.

51.725 Nuclear Theory II (3)

Nuclear shell model, many body theory of nuclei with correlations, Hartree-Fock equation and quasi-particles, collective nuclear motion, nuclear reactions including U- and R-matrix methods and pion physics. *Prerequisite:* 51.724.

51.727 Fluctuations and Order Near Critical Points (3)

Onset of long range ordering and macroscopic fluctuations in fluids, magnets, superconductors, etc. General theory of equilibrium and transport properties near phase transitions. *Prerequisites:* 51.651, 51.661 or permission.

51.728 Modern Atomic Physics and Quantum Electronics I (3)

Width and shape of spectral lines, electromagnetic interaction, Lamb shift, Einstein A and B coefficients. Multipole radiation, Born, Beta, and Ochkur approximations. Radiation trapping. *Prerequisites:* 51.573, 51.671.

51.729 Modern Atomic Physics and Quantum Electronics II (3)

Angular momentum coupling and Clebsch-Gordon coefficients, optical pumping and Hanle effects, physical description of pulsed and c.w. lasers, rate equations, non-linear interactions and Lamb dip. *Prerequisite:* 51.728.

51.731 Theoretical Acoustics (3)
Mathematical theory of waves and vibrations. Boundary value problems in radiation, diffraction and scattering, perturbation and variational methods. *Prerequisites:* 51.501, 51.631.

51.733 Relativity, The Special and General Theories (3)
Review of special relativity, mathematics of tensors, tensors in physics, the gravitational field equations, the Schwarzschild solution, experimental tests, recent developments. *Prerequisites:* 51.501, 51.631.

51.770 Elementary Particle Physics (3)
Mass spectra of the baryons, mesons and leptons; properties such as spin, isospin, parity, G-parity, strangeness, etc; strong, electromagnetic, and weak interactions; classification schemes; unitary symmetry. *Prerequisite:* 51.721.

51.771 High Energy Physics (3)
High energy elementary particle interactions, quantum field theory, symmetries, and S-matrix theory; strong interactions, pion-nucleon dispersion relations, partial wave amplitudes, electromagnetic form factors; weak interactions, beta decay, PCT, strange particle decays. *Prerequisite:* 51.721.

51.772 Special Topics in Nuclear and Particle Physics (1)
Nucleon and nuclear structure through electron scattering, meson exchange effects in few-nucleon systems, the eight-fold way, Regge poles, duality, quarks, and partons. *Prerequisite:* permission.

51.780 Research Seminar in Physics (3-6)
Various topics in advanced physics with contents selected according to need. May be repeated for credit. *Prerequisite:* permission.

51.795 Research Training Seminar (3-6)
May be repeated for credit. *Prerequisite:* 51.601.

51.797 Master's Thesis Seminar (3-6)

51.799 Doctoral Dissertation Seminar (3-6)

paced and individualized, emphasizing general principles of learning and their use to understand such topics as emotional illness in children, punishment and law, mental illness and social behavior. This course is basic to other courses in the Psychology Department.

57.310 Advanced Behavior Principles (Course)
Continuation of behavior principles. *Prerequisite:* 57.210.

57.350 Developmental Psychology (Course)
Introduction to development from infancy through adolescence. Self-paced, with emphasis on traditional and behavior theories and research in normal development: genetics, growth and maturation; sensation and perception; motivation; cognitive and social functioning.

57.390 Independent Reading Course in Psychology (Quarter-course to double course)
See page 32.

57.410 Psychological Tests and Measures (Course)
Theory of mental tests; validity, reliability and item analysis. Survey of representative tests of ability, personnel selection, aptitude, interests and personality. *Prerequisites:* one introductory course and psychological statistics.

57.430 Theories of Personality (Course)
Survey & critical evaluation of major personality theories supplemented by exercises and demonstrations. *Prerequisite:* 57.200 or 57.210.

57.440 Social Psychology (Course)
Individual behavior as influenced by and demonstrated in group settings; evaluation of contemporary research and theoretical developments. *Prerequisite:* one introductory course.

57.450 Abnormal Psychology (Course)
Study of behavioral deviations. *Prerequisite:* Junior standing and 2 departmental courses or permission of instructor.

57.480 Experimental Psychology (Course)
Data and research methods in core areas of psychology. Review of experimental design. Individual and group experiments. *Prerequisites:* one departmental course and Psychological Statistics.

57.490 Independent Study Project in Psychology (Quarter-course to double course)
See page 32.

57.491 Use of Learning Principles for Verbal Programming (Course)
Lab course based in an individualized classroom at a nearby

Psychology

57.200 Introductory Survey of Psychology (Course)
Survey of various fields of psychology with emphasis on research discoveries.

57.210 Introductory Psychology: Behavior Principles (Course)
Introduction to scientific study of behavior of organisms. Self-

junior high school and a non-directive seminar. Students have an opportunity to apply principles of learning to an educational environment. *Prerequisite:* 57.310.

57.497 Advanced Topics in Psychology

Block teaching course in learning center. Syllabus covers specific advance topics in various fields of psychology. Course is designed to supplement upper level courses by allowing the students to assemble a curriculum from a range of options in fields of psychology. Students may concentrate in a specialized area or survey a number of areas. Evaluation in form of written exercise, diary, interview or field exercise will follow each unit. Grade depends on number of units completed over the minimum required for credit. Course may be taken up to two multiples/semester. *Prerequisites:* psychology major, Jr./Sr. standing, three psychology courses, permission of instructor.

Advanced Courses

Undergraduate students enrolled in .500-level courses receive one course unit.

57.501 Physiological Psychology (3)

Anatomical and physiological substrates of behavior. *Prerequisite:* junior standing, two departmental courses or permission of advisor.

57.502 History and Systems of Psychology (3)

Philosophical and scientific background of modern psychology and contemporary problems of theory construction. *Prerequisite:* one introductory course and junior standing.

57.503 Sensation and Perception (3)

Sensory processes and complex perceptual processes discussed in the light of contemporary theories in research. *Prerequisites:* two departmental courses.

57.504 Group Process (3)

Theories about groups and consideration of their relevance to groups and organizations with which students are familiar. *Prerequisite:* junior standing.

57.505 Teaching Seminar (3)

Applications of behavior principles to teaching. Experiential non-directively led seminar. Course combines the study of group process, principles of learning and general topics in education.

57.506 Human Sexual Behavior (3)

Course provides an overview of various aspects of human sexual behavior including basic physiological knowledge, sex education, sexual myths, premarital and marital sexual behavior, homosexuality, pornography etc. Emphasis will be on physiological aspects of sex and sexuality. *Prerequisite:* one introductory course.

57.507 Behavior Crisis Intervention: Theory and Technique (3)

Technique and methods of emergency intervention for acute behavioral disturbances (e.g., drug reactions, depression, suicide) *Prerequisites:* permission of instructor. 57.430 or 57.450.

57.508 Field Observation and Analysis of the Behavior of the Mentally Ill (3)

Weekly period of observation and participation, under supervision, followed by seminar discussion of observations and experience. *Prerequisite:* 57.310.

57.509 Ethics and Professional Practices (3)

Deals with theoretical and conceptual questions as well as social problems in area of ethics and professional practice. Specifically, ethical standards, codes and legislation of psychologists and related professions and ethical problems of community mental health are examined.

57.510 Learning Principles and Human Application (3)

Laboratory study of certain behavioral procedures and application of these procedures to education, psychotherapy and other problems in human affairs. *Prerequisite:* 57.310 or equivalent, or permission of instructor.

57.511 Advanced Developmental (3)

Contemporary view of modern concepts, theories and research of human development. *Prerequisite:* 57.350 or permission of instructor.

57.512 Human Learning—Verbal Behavior (3)

Principles of learning applied to verbal behavior including consciousness, thinking, self-perception and use of behavioral framework for understanding linguistic approaches to language. *Prerequisite:* 57.310.

57.540 Quantitative Models of Behavior (3)

Review of efforts to bring mathematical methods to bear on psychological problems from 19th century to present. *Prerequisites:* one introductory course & psychological statistics.

57.560 Personality Testing (3)

Study of representative personality tests and projective techniques: Laboratory practice in the administration, scoring and interpretation of these tests. *Prerequisite:* Graduate or senior standing and permission of instructor.

57.590 Independent Reading Course in Psychology (1-6)

See page 32.

57.600 Foundations of Experimental Research (3)

Experimental psychology emphasizing the fundamentals of experimental design; students carry out experiments during the term. *Prerequisite:* permission of Psychology Department.

57.601 Experimental Foundations of Clinical Psychology (3)

General introduction to clinical psychology emphasizing its scientific roots and methods of clinical research. *Prerequisite:* graduate standing.

57.610 Theory of and Instrumentation in the Behavioral Sciences (3)

Practical experience in the design and construction of electro-

mechanical and electronic laboratory equipment. Limited to Psychology Department graduate students.

57.620 Conditioning and Learning (3)

Advanced analysis of operations and principles developed through the systematic study of classical and operant conditioning.

57.630 Systems of Psychotherapy (3)

Review of major psychotherapeutic schools through film, audiotapes and discussion. *Prerequisite:* graduate standing.

57.650 Assessment of Intellectual Functions, (3)

Examination of representative individual tests and their theoretical bases; and laboratory practice in administration, scoring, and interpretation of these tests. *Prerequisite:* permission of instructor.

57.670 Advanced Social Psychology (3)

Psychological factors in human social behavior. An examination of the research literature with emphasis on design and methodology. Consideration is given to theoretical problems in social behavior as well as to current trends in experimentation. *Prerequisite:* permission of instructor.

57.680 Student Culture, Community Consultation, Contemporary Issues (3)

Supervised research and program study of the student culture and the University from a community psychology framework. In-depth examination of selected topics related to student development, conflicts, roles, values, attitudes, etc. Experience in models of mental health and program consultation.

57.690 Independent Study Project in Psychology (1-6)

See page 32.

57.691 Practicum Training I (3)

Practice in skills related to counseling-psychotherapy by systematic exposure to critical elements in interview situation through supervision and guided observational experience. *Prerequisite:* permission of instructor.

57.692 Practicum Training II (3)

Supervision in individual and group psychotherapy from a psychodynamic point of view. *Prerequisite:* permission of instructor.

57.693 Practicum Training III (3)

Continuation of Practicum I, II.

57.696 Selected Topics: Clinical Seminar

Prerequisite: permission of instructor.

57.698 Directed Research (3-6)

Consult Psychology Department.

57.796 Master's Thesis Independent Study (3)

Prerequisite: Open to graduate students whose thesis proposal has been approved by the Department.

57.798 Doctoral Dissertation Independent Study (3)

Prerequisite: Open to graduate students whose thesis proposal has been approved by the Department.

Sociology

GENERAL AND APPLIED SOCIOLOGY

65.200 Introduction to Sociology (Course)

65.200 is a general prerequisite to all .300- and .400-level sociology courses. Fundamental characteristics of social relationships. Culture, personality, population and ecology, social institutions and processes, cultural change. Honors selection permitted.

65.221 Marriage and Family Living (Course)

Recent changes in American family; modern dating, mate-selection, engagement, early marital adjustment, communication, money, working wife, sex, and in-law problems. Not open to first semester freshmen.

65.365 Introduction to Social Work (Course)

Development of social welfare philosophy and practices. Areas of social work, group work, and community organization for public welfare. Community resources. Visits to selected agencies.

65.390 Independent Reading Course in Sociology (Quarter-course to double course)

See page 32.

65.416 Introduction to Criminology (Course)

Nature, extent and social cause of delinquency and crime. Criminal law, police and the administration of justice. Treatment of offender.

65.490 Independent Study Project in Sociology (Quarter-course to double course)

See page 32.

Advanced Courses

Undergraduate students receive one course unit for .500 level courses.

65.590 Independent Reading Course in Sociology (1-6)

See page 32.

65.690 Independent Study Project in Sociology (1-6)

See page 32.

65.691 In-Service Training Project (3)

Research project for qualified students working in government or private organization in areas related to their degree program. Project under supervision of faculty and organization concerned. *Prerequisite:* permission of department chairman.

SOCIOLOGICAL THEORY

65.410 Classical Sociological Theory (Course)

Historical background of theories, concepts, and methods of sociology; emergence and characteristics of the most significant sociological systems.

65.411 Contemporary Sociological Theory (Course)

Systematic analysis of modern sociological theories and schools of thought. Logic and procedures of theory construction. *Prerequisite:* 65.410.

Advanced Courses

Undergraduate students enrolled in .500 level courses will receive one course unit.

65.510 Concepts of Sociology (3)

Systematic survey, critical analysis of sociological concepts. Emphasis on theoretical systems.

65.610 History of Sociological Theory (3)

Comparative study of major European and American schools of sociological theory in nineteenth and early twentieth centuries.

65.611 Issues in Modern Sociological Theory (3)

Systematic analysis of modern sociological theories and major schools of social thought. International review of periodical literature on sociological theory.

65.711 Seminar in Sociological Theory (3)

Intensive study of selected area or school of sociological thought. Emphasis on research in source materials. May be repeated for credit. *Prerequisite:* permission of instructor.

SOCIAL RESEARCH METHODS

65.420 Introduction to Social Research Methods I (Course)

Introduction to nature, methods, principles, and techniques of scientific social research. Critical review of types of investigations, with accent on field research.

65.421 Introduction to Social Research Methods II (Course)

Continuation of Introduction to Social Research I. *Prerequisite:* 65.420.

Advanced Courses

Undergraduate students enrolled in .500 level courses will receive one course unit.

65.514 Historical Sociology (3)

Employment of sociological concepts in the study of historical processes. Principles and techniques for the analysis of documents and their relation to sociological research.

65.612 Social Research Methods I (3)

Research procedures in sociology with emphasis on survey design, collection of quantitative data. *Prerequisite:* 69.202.

65.613 Social Research Methods II (3)

Research procedures in sociology with emphasis on analysis of quantitative data. *Prerequisite:* 65.612.

65.614 Methodology (3)

Critical analysis of logical and methodological problems of social investigation. Theoretical orientation of logically distinct approaches to sociological research.

65.712 Seminar in Social Research (3)

Investigation of recently developed techniques in various areas of social sciences and their application to sociology. May be repeated for credit. *Prerequisite:* permission of instructor.

SOCIAL STRUCTURE AND INSTITUTIONS

65.340 The Family (Course)

Varying forms and functions of family organization in different societies. Evolution of American family patterns. Family relations and personality formation. Contemporary social changes influencing family life.

65.345 American Society (Course)

Analysis of contemporary American social institutions. American social system in historical perspective, value systems, ethnic composition, formal and informal structures.

65.346 Comparative Social Systems (Course)

Comparative analysis of contemporary societies, social institutions, value systems, formal and informal organization, integration and cohesiveness, relationships with other societies.

65.415 Law and the Social Order (Course)

Functions of law in society; social origins and development of political authority around human rights. Changing role of law in modern democratic state.

65.441 Introduction to Social Stratification (Course)

Major theories and related empirical studies of stratification; sources and consequences of mobility; and relationship of stratification to life-style, political power and personality.

65.445 Contemporary Communities (Course)

Analysis and comparison of social and political structures and

ideologies of contemporary communities of the world, stressing American community types. Approaches to community research.

Advanced Courses

Undergraduate students enrolled in .500 level courses receive one course unit.

65.540 Social Institutions (3)
Social structure emphasizing the nature, functioning, integration of social institutions.

65.544 The Sociology of Occupations (3)
Sociology of work relationships; using occupation as unit of analysis. Emphasis on process of professionalization, and on professional roles in complex organization.

65.545 Sociology of the Family (3)
Analysis of current thinking and research in sociology of family. Focus on intra- and inter-societal variations in family and kinship patterns.

65.580 Sociology of Religion (3)
Concepts, methods and techniques in sociological analysis of religion. Historical comparative and functional approaches to religion. Emphasis on European and American Christianity.

65.615 Sociology of Law (3)
Functions of law in society; social origins and development of political authority around human rights. Changing role of law in the modern democratic state.

65.640 Complex Organizations (3)
Structure and functions of formal organizations. Critical review of empirical research.

65.641 Studies in Social Stratification and Mobility (3)
Class, status and power relations in society. Caste, estate, social class, social mobility. Theories and empirical research findings of current importance.

65.714 Seminar in Social Organization (3)
Consideration of theoretical and methodological problems in field and preparation of related research reports. May be repeated for credit. *Prerequisite:* permission of instructor.

SOCIAL CHANGE

65.347 Race Relations (Course)
Sociological examination of relationship between and within racial groups; analysis of social causes of prejudice and discrimination.

65.348 The Position of Women in the Social Order (Course)
Location and description of women in population. Nature and extent of prejudice and discrimination against women. Impact and significance of female equality upon the social order.

65.350-.351 Sociology of the Afro-American (Course, Course)
Examinations of racism in Europe. Process of Afro-American's assimilation into U.S. culture. Negro institutions, business, leadership, education, literature, music. Migration, poverty discrimination. Demand for equality. 65.350 is prerequisite to 65.351.

65.352 Human Ecology (Course)
Relation of environment to distribution of population and to social structure and culture.

65.360 Introduction to Social Change (Course)
Analysis of the causes, processes and consequences of social change. Critical examination of theories of social change in the context of comprehensive analysis.

65.361 Social Disorganization (Course)
Analysis of social problems created by technical and cultural change. Social background of personal maladjustment.

65.442 Political Sociology (Course)
Systematic analyses of contributions of classical sociological writers to theory and research in politics. Methods and techniques useful in examining political behavior and institutions.

65.450 Population (Course)
Survey of world population trends. Introduction to methods of analysis. Determinants and consequences of variations in fertility, mortality, and migration.

Advanced Courses

Undergraduate students enrolled in .500 level courses receive one course unit.

65.560 Social Conflict (3)
Sociological analysis of history, typology, structure, function and nature of social conflict.

65.592 Social Aspects of Mass Communication (3)
Communication of ideas in modern society. Special attention to current empirical research on mass media in relation to sociological theory.

65.594 Public Opinion (3)
Introduction to sociological, psychological and political theories and methods of public opinion research. Nature of public opinion information, distribution, and influence on society.

65.642 Sociology of Political Action (3)
Critical evaluation of recent theories of political sociology. Motivation in political behavior. Application of concepts of group participation from functional sociology and psychology. *Prerequisite:* 6 hours of government.

65.665 Studies in the Analysis of Social Change (3)
Systematic analysis of processes of social change; its sources,

patterns and consequences. Sociological theories and methods of inquiry into phenomena of social change.

SOCIAL PSYCHOLOGY

65.391 Social Interaction (Course)

Sociological perspective of the interrelationship between individual and group. Socialization roles in small and complex organizations, mass communication and social movements.

Advanced Courses

Undergraduates enrolled in .500 level courses receive one course unit.

65.570 Social Psychology of Intergroup Tensions (3)

Intergroup prejudice and its relation to other aspects of personality and social behavior. Recent research on the determinants of intergroup attitudes. Techniques for the reduction of intergroup tension.

65.591 Introduction to Social Psychology (3)

Survey of sociological perspective of study of interrelationship of person to group: concepts, theories, and methods. Consideration of socialization, attitudes and values, collective behavior and intergroup relations.

65.593 Collective Behavior (3)

Analysis of crowd, mass, public behavior. Relationship to social movements of modern times. Role of leadership in various types of collective behavior. Factors, processes in emergence of social order.

65.692 Theories of Social Psychology (3)

Analysis and criticism of selected theories dealing with the nature of human nature, personality, group influences and interaction. Consideration of symbolic interaction, role theory, Freudian theories, etc.

65.716 Seminar in Social Psychology (3)

Consideration of sociological aspects of recent theoretical and methodological advances in the field and preparation of related research reports. May be repeated for credit. *Prerequisite:* permission of the instructor.

THESIS AND DISSERTATION RESEARCH

65.796 Master's Thesis Independent Study (3)

Directed individual thesis research carried on under supervision of the student's thesis or dissertation committee chairman. *Prerequisite:* open to graduate students whose thesis proposal has been approved by department.

65.797 Master's Thesis Seminar (3)

Intended primarily for students engaged in clarification of their research objectives and the development of suitable research proposal for an M.A. thesis.

65.798 Doctoral Dissertation: Independent Study (3)

Directed individual dissertation research carried on under the supervision of the student's thesis or dissertation committee chairman. *Prerequisite:* open to graduate students whose dissertation proposal has been approved by the department.

65.799 Doctoral Dissertation Seminar (3)

Intended primarily for students engaged in clarification of their research objectives and the development of suitable research proposals for a dissertation.

Speech Arts

67.110 Public Speaking (Course)

Principles of public speaking, sound standards for evaluating speeches, and practice in the preparation and presentation of several types of public addresses.

67.116 Make-up I (Quarter-course)

Introduction to stage make-up. Basics of stage make-up, make-up material, make-up lists, color charts, facial anatomy, corrective make-up.

67.117 Make-up II (Quarter-course)

Continuation of Make-up I.

67.118 Intercollegiate Forensics (Quarter-course)

Participation in intercollegiate debate program.

67.122 Introduction to Theatre (Course)

Survey of the various phases of contemporary theatre in relationship to its historical development, dramatic literature, and aesthetics.

67.124 Survey of Theatre I (Course)

An examination of contemporary theatre production techniques and playscript. Emphasis is placed on the theatre's historical roots; from primitive times to 19th century.

67.125 Survey of Theatre II (Course)

Continuation of Survey of Theatre I; covering the 19th century and putting major emphasis on 20th century theatre.

67.150 Argumentation (Course)

Use of reason, nature and forms of argument, structure of argumentative discourse, and relationship of delivery to effective argument.

67.170 Oral Interpretation (Course)

Analysis, interpretation, and practice in expressive reading of literature to develop ability in sharing literature with an audience.

67.300 Technical Theatre I (Course)

Theory of construction, rigging methods and materials for tech-

nical aspects of theatre production with application through laboratory experience.

67.301 Technical Theatre II (Course)

Theory of design techniques and their functions in the theatre. Laboratory experience provided.

67.322 Stage Movement (Course)

Analysis and understanding of the body movement as the actor's visual means of communication with an audience.

67.323 Acting I (Course)

Principles, theories, and philosophical origins of the dramatic performance expressed through contemporary entertainment media.

67.324 Acting II (Course)

Analysis of the actor's problem through a detailed exploration of the craft and techniques of the actor related to the performing arts. *Prerequisite:* 67.323.

67.325 Fundamentals of Directing (Course)

Direction in the theatre, including comparison with and contrast to the other dramatic media. *Prerequisite:* 67.323.

67.330 Fundamentals of Scene Design (Course)

Fundamentals of perspective drawing; graphic presentation of floor plans and elevations for design in the performing arts. Laboratory. *Prerequisite:* permission.

67.335 Lighting Design (Course)

Lighting instruments, control boards and the use of lighting as an integral part of play design for the performing arts. *Prerequisite:* permission of the instructor.

67.340 Theatre Management (Quarter-course)

An investigation into the practical and theoretical elements of theatre business management, box office procedures and public relations including professional and non-professional theatre.

67.350 Introduction to Rhetorical Communication (Course)

Nature, scope and significance of the tradition of rhetoric as expressed in works of major theorists from antiquity to present. (Non-performance course)

67.351 Introduction to Public Address (Course)

Critical examination of the ideology, strategy, and techniques of public speakers who have influenced the thoughts and directions of modern democratic and totalitarian societies. (Non-performance course)

67.361 Fundamentals of Playwriting (Course)

Theory and practice of the fundamental techniques of dramatic writing for the theatre.

67.370 Speech and Voice for the Theatre (Course)

Intended primarily for theatre majors concerned with development of effective techniques of voice and diction.

67.390 Independent Reading Course in Speech Arts (Quarter-course to double course)

See page 32.

67.394 Modern American Theatre and Drama (Course)

American Drama from O'Neill to the present.

67.490 Independent Study Project in Speech Arts (Quarter-course to double course)

See page 32.

Advanced Courses

Undergraduate students enrolled in .500 level courses will receive one course unit.

67.510 Advanced Public Speaking (3)

Theory and practice of speech composition with emphasis on style and content. *Prerequisite:* 67.110 or permission.

67.512 Public Address in Contemporary Society (3)

Analysis of the character and role of speeches addressed to selected 20th century issues.

67.521 Advanced Scene Design (3)

Fundamentals of design for the performing arts; preparation of sketches and drawings based on the principal styles and periods in theatres. *Prerequisite:* permission.

67.524 Costume Design I (3)

The study of the history and design of theatrical costumes from antiquity to late 16th century.

67.525 Costume Design II (3)

The study of the history and design of theatrical costumes from the late 16th century to 1914.

67.533 Advanced Directing (3)

Seminar laboratory course in problems of directing plays for the theatre. *Prerequisites:* 67.325 and consent of the instructor.

67.543 Acting III (3)

A seminar laboratory course dealing with the advanced study of the actor's problem with particular emphasis on various theatrical styles. *Prerequisites:* 67.322, 67.323, 67.324, or permission of instructor.

67.550 History of Theatre I (3)

Historical pattern of theatre as art form and social function from its earliest appearance through the Renaissance. *Prerequisites:* advanced undergraduate standing and 67.395.

67.551 History of Theatre II (3)

Historical pattern of theatre as art form and social function from the Baroque to the present. *Prerequisite:* 67.550.

67.556 History of American Theatre (3)

The Theatre in America as a cultural force from the colonial period to present.

67.560 Dramatic Theory and Criticism (3)

Examination of historical theory and criticism of drama from Aristotle to the present with intensive study of those periods that directly relate to the modern theatre. Required of all degree graduate students in theatre. *Prerequisites:* 67.550-1.

67.562 Advanced Playwriting (3)

Theory and practice of advanced techniques of dramatic writing for theatre.

67.579 Seminar in Methods of Teaching Speech (3)

Designed to acquaint the prospective speech teacher with the philosophy, theory, practice and methods of speech education. *Prerequisite:* four courses in Speech Arts.

67.580 Communication in Small Groups (3)

Contemporary theories and research findings on interpersonal and small group communication; problems of decision making in small groups. *Prerequisite:* permission of the instructor.

67.590 Independent Reading Course in Speech Arts (1-6)

See page 32.

67.594 Seminar in Rhetorical Communication (3)

Principal theorists in the development of rhetorical theory. Periods and works studies announced semester the course is offered. May be repeated for credit. *Prerequisite:* graduate standing or permission.

67.595 Seminar in Public Address (3)

Study of the public address of a specific period or problem area through critical study of the works and methods of its principal speakers. Topics announced from semester to semester. May be repeated for credit.

67.596 Seminar in Theatre (3)

Problems in items of theatrical presentation of theatre history. Topics will be announced the semester the course is offered. May be repeated for credit.

67.602 Research Seminar in Speech Arts (3)

Required seminar of all degree graduate students in Department of Speech Arts. Study and practice in methods of research and writing. Research problems vary from semester to semester.

67.610 Problems in Theatrical Design (3)

Special design problems to meet the interests of individual students in design for drama, ballet and opera.

67.612 Problems in Technical Theatre (3)

An intensive study of particular phases of technical theatre for the graduate student.

67.614 Directing III (3)

A seminar-laboratory course dealing with the problems of directing plays for the theatre. *Prerequisite:* permission of instructor.

67.650 Seminar in Theatre History (3)

Intensive study of one or more topics in broad range of theatre history through discussion, oral presentation, demonstration and written assignments. *Prerequisites:* 67.550-1 or their equivalent.

67.690 Independent Study Project in Speech Arts (1-6)

See page 32.

67.797 Master's Thesis Seminar (3-6)

67.798 Non-Thesis Option Seminar (3-6)

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1971-72 Faculty

1971-72 Full-time Faculty

THE FACULTY LIST BELOW COVERS THE 1971-72 ACADEMIC YEAR ONLY.

Part-time faculty listed on page 303

A

Adler, Ronald J. (1970), B.S., Carnegie Institute of Technology; Ph.D., Stanford University. *Associate Professor of Physics.*

Akins, J. Carl (1970), B.A., University of Texas; M.A., Ph.D., Harvard University. *Associate Professor, Government and Public Administration.*

Aldridge, Mary (1955), B.A., University of Georgia; M.A., Duke University; Ph.D., Georgetown University. *Professor of Chemistry.*

Allen, George R. (1971), B.S., M.B.A., University of Pittsburgh; D.B.A., Arizona State University. *Associate Professor of Policy & Behavior, Business Administration.*

Allen, Valerie (1970), A.B., Cornell University; M.A., Ph.D., University of California, Los Angeles. *Assistant Professor of History.*

Allen, William B. (1971), B.A., Pepperdine College; M.A., Claremont Graduate School. *Assistant Professor of Government and Public Administration.*

Anderson, Richard (1966), Lewis & Clark College; M.A., Ph.D., University of Maryland. *Associate Professor of Biology.*

Anthon, Carl G. (1961), B.A., University of Chicago; M.A., Ph.D., Harvard University. *Professor of History.*

Armstrong, Lincoln (1970), B.A., Columbia University; Ph.D., University of Pennsylvania. *Associate Professor, International Business & Marketing, Business Administration.*

Arnold, Steven H. (1970), B.A., Occidental College; M.A., Johns Hopkins University. *Instructor in International Service.*

Astrup, Tage (1967), M.S., Polytechnical University (Copenhagen); Ph.D., University of Copenhagen. *Senior Research Scientist in Chemistry.*

B

Baily, Nathan A. (1946), B.A. in S.S., College of the City of New York; M.A., Ph.D., Columbia University. *Professor of Business Management, Policy & Behavior, Business Administration.*

Baker, Kenneth (1966), B.A., M.A., University of Kansas. *Associate Professor of Speech Arts.*

Balducci, Umberto (1969), B.A., St. Vincent College; M.A., Ph.D., University of Pittsburgh. *Assistant Professor of Literature.*

Ballou, Esther W. (1966), B.A., Bennington Col-

lege; M.A., Mills College; Graduate Degree, Juilliard School of Music. *Associate Professor of Music.*

Balsham, Joel (1971), A.B., Temple University; A.M., University of Pennsylvania; Ed.D., University of Massachusetts. *Assistant Professor of Education.*

Banta, William (1970), B.A., University of California at Berkeley; Ph.D., University of Southern California. *Assistant Professor of Biology.*

Baranovic, Boris (1966), B.A., Amherst College; M.F.A., Yale University. *Assistant Professor of Speech Arts.*

Barron, Austin (1971), B.S., City College of New York; M.S., Ph.D., Purdue University. *Assistant Professor of Mathematics & Statistics.*

Barrett, Nancy (1966), B.A., Goucher College; M.A., Ph.D., Harvard University. *Associate Professor of Economics.*

Bartfeld, Charles I. (1966), M.B.A., Ph.D., Columbia University. *Professor of Management Sciences, Business Administration. Assistant Dean, M.B.A. Program; Director, Operations Analysis Program.*

Bassler, Richard A. (1969), B.S., University of Colorado; M.S., George Washington University. *Program Director for Computer Systems; Assistant Professor of Information Science, CCE.*

Bean, Arthur, Jr. (1963), B.A., M.A., University of Virginia; M.S., Catholic University of America. *Assistant Professor of Literature.*

Beisner, Robert L. (1965), M.A., Ph.D., University of Chicago. *Professor of History.*

Belaunde-Terry, Fernando (1971), B. Arch., University of Texas; Diploma, Instituto de Urbanismo; Doctor Honoris Causa, Universidad Nacional Agraria, Peru. *Visiting Professor of Spanish and Latin American Studies.*

Berman, Alan (1969), B.A., Johns Hopkins University; M.A., Ph.D., Catholic University of America. *Assistant Professor of Psychology.*

Betts, Madeleine (1969), B.A., M.A., Universite D'Ottawa; Ph.D., University of Illinois. *Assistant Professor of Languages and French Studies.*

Blanchard, Robert O. (1965), B.S.J., M.S.J., Northwestern University; Ph.D., Syracuse University. *Associate Professor of Communication.*

Bliss, Edward Lydston (1968), B.A., Yale University. *Professor of Communication.*

Blose, Barry (1969), B.A., Yale University; M.A., Ph.D., Columbia University. *Assistant Professor of Philosophy.*

- Boddy, Raford** (1972), B.A., University of California; Ph.D., University of Michigan. *Associate Professor of Economics.*
- Bodine, John J.** (1968), B.A., University of Oklahoma; M.A., Ph.D., Tulane University. *Associate Professor of Anthropology.*
- Boren, John** (1969), B.A., University of Texas; M.A., Ph.D., Columbia University. *Professor of Psychology.*
- Borkovec, Vera Z.** (1966), M.A., Hollins College; M.A., American University. *Assistant Professor of Languages and Russian Studies.*
- Bowles, W. Donald** (1957), B.A., University of Washington; M.A., Ph.D., Columbia University. *Professor of Economics; Vice President for Academic Affairs.*
- Boyd, Orton W.** (1959), B.A., M.A., Ohio State University. *Professor Emeritus of Accounting and Taxation, Business Administration.*
- Boynton, Robert P.** (1969), B.A., Calvin College; M.A., Ph.D., University of Michigan. *Professor of Government and Public Administration, Dean for Graduate Studies and Research.*
- Brabanski, Lothar** (1957), Master, Academy of Fine Arts, Berlin. *Associate Professor of Art.*
- Bradshaw, Mary E.** (1950), B.A., Pennsylvania College; M.A., Ph.D., University of Wisconsin. *Professor Emeritus of International Relations, International Service.*
- Brandenburg, David J.** (1948), B.S., Bowdoin College; M.A., Ph.D., Columbia University. *Professor of History.*
- Braun, Ann B.** (1963), B.A., M.A., Boston University; Ph.D., University of New Hampshire. *Associate Professor of Chemistry.*
- Bray, Richard M.** (1954), B.A., M.A., University of Colorado. *Professor Emeritus of Government and Public Administration.*
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- Breyere, Edward J.** (1961), B.S., M.S., Ph.D., University of Maryland. *Professor of Biology.*
- Brown, David C.** (1971), A.B., American University; M.A., M.Phil., Ph.D., Rutgers University. *Assistant Professor of Government and Public Administration.*
- Brown, Roger H.** (1965), B.A., M.A., Ph.D., Harvard University. *Professor of History.*
- Bryant, Coralie** (1967), A.B., Barnard College; Ph.D., London School of Economics. *Associate Professor of Government and Public Administration.*
- Bufford, Rodger** (1970), B.A., King's College; M.A., Ph.D., University of Illinois. *Assistant Professor of Psychology.*
- Burhoe, Sumner O.** (1956), B.S., Massachusetts University; M.S., Kansas State University; Ph.D., Harvard University. *University Professor Emeritus of Biology.*
- Burkart, Edward I.** (1960), B.S., M.A., Georgetown University; Ph.D., University of Pennsylvania. *Associate Professor of Linguistics.*
- Burkhart, Geoffrey L.** (1968), B.A., Oakland City College; Ph.D., University of Rochester. *Assistant Professor of Anthropology.*
- Burns, Kirk L.** (1968), B.S., U.S. Naval Academy; M.A., University of Washington; Ph.D., University of Paris. *Associate Professor of Management Sciences, Business Administration.*
- Burr, Samuel Engle, Jr.** (1947), Litt.B., State University, Rutgers; M.A., University of Wisconsin; M.A., Columbia University; Ed.D., University of Cincinnati. *Professor Emeritus of Education.*
- Bush, George P.** (1948), M.B.A., Harvard University; M.A., Ph.D., American University. *Professor Emeritus of Government and Public Administration.*
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- Cantor, Muriel** (1968), B.A., M.A., Ph.D., University of California at Los Angeles. *Associate Professor of Sociology.*
- Cantrell, Thomas S.** (1971), B.S., M.S., University of South Carolina; Ph.D., Ohio State University. *Assistant Professor of Chemistry.*
- Carson, Frederick** (1970), B.S., Massachusetts Institute of Technology; M.A., Washington University; Ph.D., University of Chicago. *Associate Professor of Chemistry.*
- Chabot, C. Barry** (1971), B.A., Colgate University; M.A. Clark University; Ph.D., State University of New York at Buffalo. *Assistant Professor of Literature.*
- Chang, I-Lok** (1970), B.S., California Institute of Technology; M.A., Ph.D., Cornell University. *Assistant Professor of Mathematics & Statistics.*
- Charbonneaux, Marie A.** (1960), Baccalaureate, Licence en-Droit, University of Paris. *Etudes Pratiques d'Anglais, Sorbonne. Assistant Professor of Languages and French Studies.*
- Chertok, Benson T.** (1966), B.S., M.S., Massachusetts Institute of Technology; Ph.D., Boston University. *Associate Professor of Physics.*
- Chinniss, Robert J.** (1964), B.S., East Carolina College; M.Ed., University of North Carolina; Ed.D., University of Maryland. *Associate Professor of Education.*
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Culbertson, Stuart A. (1970), B.A., Arizona State University; M.A., Ph.D., Bowling Green University. *Assistant Professor of Psychology.*

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D

D'Arista, Robert A. (1961), New York University; Columbia University; Academic Grand Chaumiere, Paris. *Associate Professor of Art.*

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Di Bacco, Thomas V. (1965), B.A., Rollins College; M.A., Ph.D., American University. *Associate Professor of History.*

Dorin, Dennis D. (1967), B.A., Arizona State University; M.A., University of Virginia. *Assistant Professor of Government and Public Administration.*

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Durfee, Harold A. (1955), Ph.B., University of Vermont; B.D., Yale University. Ph.D., Columbia University. *William Frazer McDowell Professor of Philosophy.*

E

Eames, Ivan L. (1969), B.A., Howard University; M.A., University of Maryland. *Assistant Professor of Sociology.*

Earle, Chester B. (1955), B.A., Ph.D., University of Texas. *Professor of Government and Public Administration.*

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F

Fair, Marvin L. (1958), B.A., University of Ohio; M.A., Ph.D., Ohio State University. *Professor Emeritus of Transportation and Logistics, Business Administration.*

Fehnel, Richard A. (1970), B.A., M.P.A., University of Washington. *Assistant Professor of Government and Public Administration.*

Ferster, Charles (1969), B.S., The State University of Rutgers; M.A., Ph.D., Columbia University. *Professor of Psychology.*

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Foley, Robert T. (1964), B.S., University of Massachusetts; M.S., Lafayette College; Ph.D., University of Texas. *Professor of Chemistry.*

Fox, Richard (1970), B.A., Northeastern University; Ph.D., University of Hawaii. *Assistant Professor of Biology.*

Fox, Robert P. (1971), B.S., M.S., Georgetown University; Ph.D., University of Illinois. *Associate Professor, English Language Institute, CCE.*

Frady, James D., Jr. (1964), A. B., M.Ed., University of North Carolina. *Assistant Professor of Physical Education.*

Frailey, Robert H. (1949), B.S., M.A., American University. *Professor of Physical Education.*

Fritschler, A. Lee (1964), B.A., Union College; M.P.A., Ph.D., Syracuse University. *Professor of Government and Public Administration; Acting Dean (1972-73).*

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G

Gabriel, Ralph H. (1958), B.A., M.A., Ph.D., Yale University. *University Professor Emeritus, International Service.*

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Garrard, Mary D., (1964), B.A., Newcomb College; M.A., Radcliffe College; Ph.D., Johns Hopkins University. *Associate Professor of Art.*

Gates, Robert F. (1946), Detroit School of Arts and Crafts; Art Students' League of New York; Phillips Gallery; Colorado Springs Fine Arts Center. *Professor of Art.*

Geiser, Daniel S. (1966), B.A., Juniata College; M.A., Ohio State University; Ed.D., Columbia University. *Professor of Physical Education.*

Glazer, Herbert (1968), A.B., A.M., Ph.D., Boston University. *Professor of Policy & Behavior, Business Administration. Acting Dean, School of Business Administration.*

Goldberg, Arthur J. (1972), B.S.L., J.D., Northwestern University. *University Professor of Law and Diplomacy.*

Goldin, Jessica W. (1966), B.A., Long Island

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Gondos, Dorothy D. (1947), B.A., Swarthmore College; M.A., Ph.D., University of Pennsylvania. *Professor of History.*

Goodman, Charles H. (1956), B.S., Wilson Teachers College; M.S., Ph.D., Pennsylvania State University. *Associate Dean; Professor of Government and Public Administration.*

Gorman, Ronald H. (1969), B.B.A., M.B.A., University of Cincinnati; Ph.D., Ohio State University. *Assistant Professor of Policy & Behavior, Business Administration.*

Gray, James (1970), B.A., Maryknoll College; M.A., Ph.D., Fordham University. *Associate Professor of Psychology.*

Gray, Mary W. (1968), B.A., Hastings College; M.A., Ph.D., University of Kansas. *Professor of Mathematics & Statistics.*

Green, J. Ronald (1971), B.A., Rice University; Ph.D., State University of New York at Buffalo. *Assistant Professor of Literature.*

Griffith, Ernest S. (1958), A.B., Hamilton College; D.Phil., Oxford. *Founding Dean and University Professor Emeritus, International Service.*

Gregg, Robert W. (1970), A.B. Colgate University; Ph.D. Cornell University. *Professor of International Service; Dean, School of International Service.*

Greenberg, Linda Lubrano (1968), B.A., Hunter College; M.A., Ph.D., Indiana University. *Assistant Professor of International Relations, International Service.*

Grimsted, Patricia (1970), B.A., M.A., Ph.D., University of California at Berkeley. *Visiting Associate Professor of History.*

Gross, Chalmer A. (1959), B.S., M.S., University of Illinois; Ph.D., University of Chicago. *Professor of Education.*

Grotberg, Edith (1963), B.A., Northwestern University; M.A., University of Chicago; Ph.D., Northwestern University. *Professor of Education.*

H

Hadary, Doris E. (1962), B.S., University of Illinois; M.S., Ph.D., University of Wisconsin. *Associate Professor of Chemistry.*

Hadermann, Albert F. (1971), B.S., College of the City of N.Y.; M.S., Ph.D., American University. *Assistant Professor of Chemistry.*

Hale, William (1971), B.S., Purdue University; M.B.A., Ph.D., University of California, Berkeley. *Assistant Professor of Policy and Behavior, Business Administration.*

Hallahan, Charles (1970), B.S., Tufts University; M.S., Ph.D., The State University, Rutgers.

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Halpern, Katherine (1970), B.A., Vassar College; Ph.D., University of Chicago. *Professor of Anthropology.*

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Hampton, Joseph E. (1961), B.S., University of Florida; M.A., Ph.D., Ohio State University. *Professor of Accounting; Director, Budget Office.*

Han, Pierre (1964), B.A., Catholic University of America; M.A., Ph.D., Columbia University. *Professor of Literature.*

Hanson, Royce (1957), B.A., Central State College (Oklahoma); M.A., Ph.D., American University. *Professor of Government and Public Administration.*

Hanus, Jerome J. (1966), B.A., University of Seattle; M.A., University of Washington; Ph.D., University of Maryland. *Associate Dean; Associate Professor of Government and Public Administration.*

Hardwick, Charley Dean (1967), B.A., Southern Methodist University; B.D., Drew Theological School; M.A., Ph.D., Yale University. *Associate Professor of Religion.*

Harnden, Glenn (1969), A.B., M.A., Stanford University. *Assistant Professor of Communication.*

Harris, George L. (1965), B.A., University of Washington; Ph.D. Catholic University of America. *Associate Professor of Anthropology and International Service.*

Harrison, Mark (1960), B.S., Northeast Missouri State College; Ph.D., Catholic University of America. *Professor of Physics.*

Hattery, Lowell H. (1948), B.A., Ohio University; Ph.D., American University. *Professor of Government and Public Administration.*

Hawke, Virginia (1950), B.S., M.A., Ohio State University. *Associate Professor of Physical Education.*

Hayes, Evelyn Swarthout (1951), B.M., University of Kansas; Tobias Matthay Piano School, London. *Professor of Music.*

Hays, James (1970), B.S., Maryland University; M.S., Ph.D., Tufts University. *Assistant Professor of Psychology/ Mathematics and Statistics.*

Heimsath, Charles H. (1959), B.A., Yale University; M.I.A., Columbia University; Ph.D., Yale University. *Professor of South Asian Studies, International Service.*

Hendrix, J. Allen (1965), B.A., East Texas State University; M.A., University of Oklahoma; Ph.D., Louisiana State University. *Professor of Speech Arts.*

Herzbrun, Helene McKinsey (1959), B.A., University of Chicago. *Professor of Art.*

Hillyer, Raphael (1970), B.A., Dartmouth College; M.A., Harvard University. *Associate Professor of Music.*

Hirano, Marjorie (1967), B.E., University of Hawaii; M.S., Illinois Institute of Technology. *Associate Professor of Art.*

Hodinko, Bernard A., (1967), B.S., California State College; M.A., University of West Virginia; Ed.D., Pennsylvania State University. *Professor of Education.*

Hofmeister, Heimo (1968), Ph.D., University of Vienna. *Associate Professor of Philosophy.*

Hoggard, Gary D. (1971), B.A., California State College; M.A., University of Southern California. *Instructor in International Service.*

Holliday, Frances (1959), B.S., Northwest Missouri State University; M.A., University of Missouri; Ed.D., George Washington University. *Professor Emeritus of Education.*

Holzager, Richard (1970), B.A., Columbia University; M.A., Ph.D., Harvard University. *Associate Professor of Mathematics & Statistics.*

Hood, Mary Ann G. (1957), B.A., M.A. Michigan State University; M.A., American University. *Associate Professor, English Language Institute, CCE.*

Horvat, Branko (1970), Diploma in Economics, D.Sc., Zagreb University; Ph.D., Manchester University; Titular Docent, Zagreb University. *Professor of Economics.*

Howey, Nicholas (1969), B.A., M.A., Michigan State University; Ph.D., Wayne State University. *Assistant Professor of Speech Arts.*

Hubbell, Josephine W. (1962), B.S., College of William and Mary; M.A., Iowa; Ph.D., New York University. *Associate Professor of Education.*

Huber, Franz (1970), B.A., M.A., Ph.D., University of Michigan. *Associate Professor of Education.*

Huberman, Gisela B. (1971), B.A., M.A., Ph.D., George Washington University. *Assistant Professor of Spanish and Latin American Studies.*

Hume, Gary (1968), B.A., Ph.D., University of Minnesota. *Assistant Professor of Anthropology.*

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I

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Isbell, Horace S. (1969), B.S., M.S., University

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J

Jacobs, Walter W. (1969), B.A., City University of New York; M.A., Ph.D., George Washington University. *Professor of Mathematics & Statistics.*

Jardin, Robert P. (1968), B.Ed., University of Hawaii; M.A., San Francisco State College; Ph.D., American University. *Adjunct Professor of Education.*

Jarzynski, Jacek (1963), B.S., M.S., Ph.D., Imperial College, London. *Associate Professor of Physics.*

Johnson, Douglas L. (1970), B.A., M.A., Michigan State University. *Assistant Professor of International Service.*

Johnson, Jimmy D. (1970), B.B.A., Marshall University; M.S., Northern Illinois University; Ph.D., American University. *Associate Professor of Business Administration. Program Director, Business-Government Relations & Center for the Study of Private Enterprise; Program Director Business Law.*

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K

Kaplan, Barbara H. (1968), B.A., Melbourne University. *Assistant Professor of Sociology.*

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Landman, Ruth H. (1965), B.A., Vassar College; M.A., Ph.D., Yale University. *Associate Professor of Anthropology.*

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Malloy, James A., Jr. (1971), B.A., Morris Harvey College; M.A., Ph.D., Ohio State University. *Assistant Professor of History.*

Mancill, Grace S. (1960), B.A., Cornell University; M.A. American University; Ph.D., Georgetown University. *Assistant Professor of Linguistics.*

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McGinnies, Elliott (1971), B.A., University of Buffalo; M.A., Brown University; Ph.D., Harvard University. *Professor of Psychology.*

McLain, James L. (1934), B.A., George Washington University; Cert., Peabody Conservatory of Music. *Professor of Music.*

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McNett, Charles W., Jr. (1967), B.A., Ph.D., Tulane University. *Associate Professor of Anthropology.*

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Muhlbach, Walter F. (1957), Ph.B., University of Chicago; M.A., Ohio State University. *Professor Emeritus, Business Administration.*

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N

Naidel, Simon (1957), B.S., College of the City of New York; M.A., Columbia University; Ph.D., American University. *Professor Emeritus of Economics.*

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Smith, John H. (1947), B.A., Iowa State Teachers College; M.B.A., Ph.D., University of Chicago. *Professor of Mathematics & Statistics.*

Smith, Gordon H. (1947), B.M., B.S.M., Wooster College; M.A., Mills College; Ph.D., University of Iowa. *Professor of Music.*

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Strautz, Robert L. (1965), B.S., American University; Ph.D., University of Maryland. *Associate Professor of Biology.*

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T

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Torrence, Lois E. (1953), B.A., Kansas Wesleyan University; M.A., Southern Methodist University; Ph.D., American University. *Professor of Government and Public Administration, Director, Office of Institutional Studies.*

Turaj, Frank (1965), B.A., M.A., University of Connecticut; Ph.D., Brown University. *Associate Professor of Literature.*

Turak, Theodore (1966), B.A., M.A., Western Reserve University; Ph.D., University of Michigan. *Associate Professor of Art.*

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Wilson, Howard (1963), B.E.E., George Washington University; M.A., Ph.D., University of Maryland. *Assistant Professor of Mathematics & Statistics.*

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- Barr, William** (1970), B.A., Howard University; M.S.W., Catholic University of America. *Professorial Lecturer in CAJ, CCE.*

- Barrett, Mary Ellen** (1969), B.A. Mary Manse College; M.A.T., Georgetown University. *Professorial Lecturer, English Language Institute, CCE.*
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- Boul, Jack** (1969), *Professorial Lecturer in Art.*
- Brogan, Raymond F.** (1965), B.S., St. Joseph's College; M.A., George Washington University. *Professorial Lecturer in Management Information Systems, CCE.*
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- Bublitz, Robert W.** (1968), B.S., M.S., Oklahoma State University. *Professorial Lecturer in Operations Research, CCE.*
- Buchanan, George W.** (1963), A.B., Simpson College; B.D., Garrett Biblical Institute; M.A., Northwestern University; Ph.D., Drew University. *Professorial Lecturer in Religion.*

Burakreis, Turgut I. (1970), B.S., M.S., U.S. Naval Academy and Professional School. *Professorial Lecturer in Management Information Systems, CCE.*

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Marlow, John E. (1963), B.A., American University. *Professorial Lecturer in Music.*

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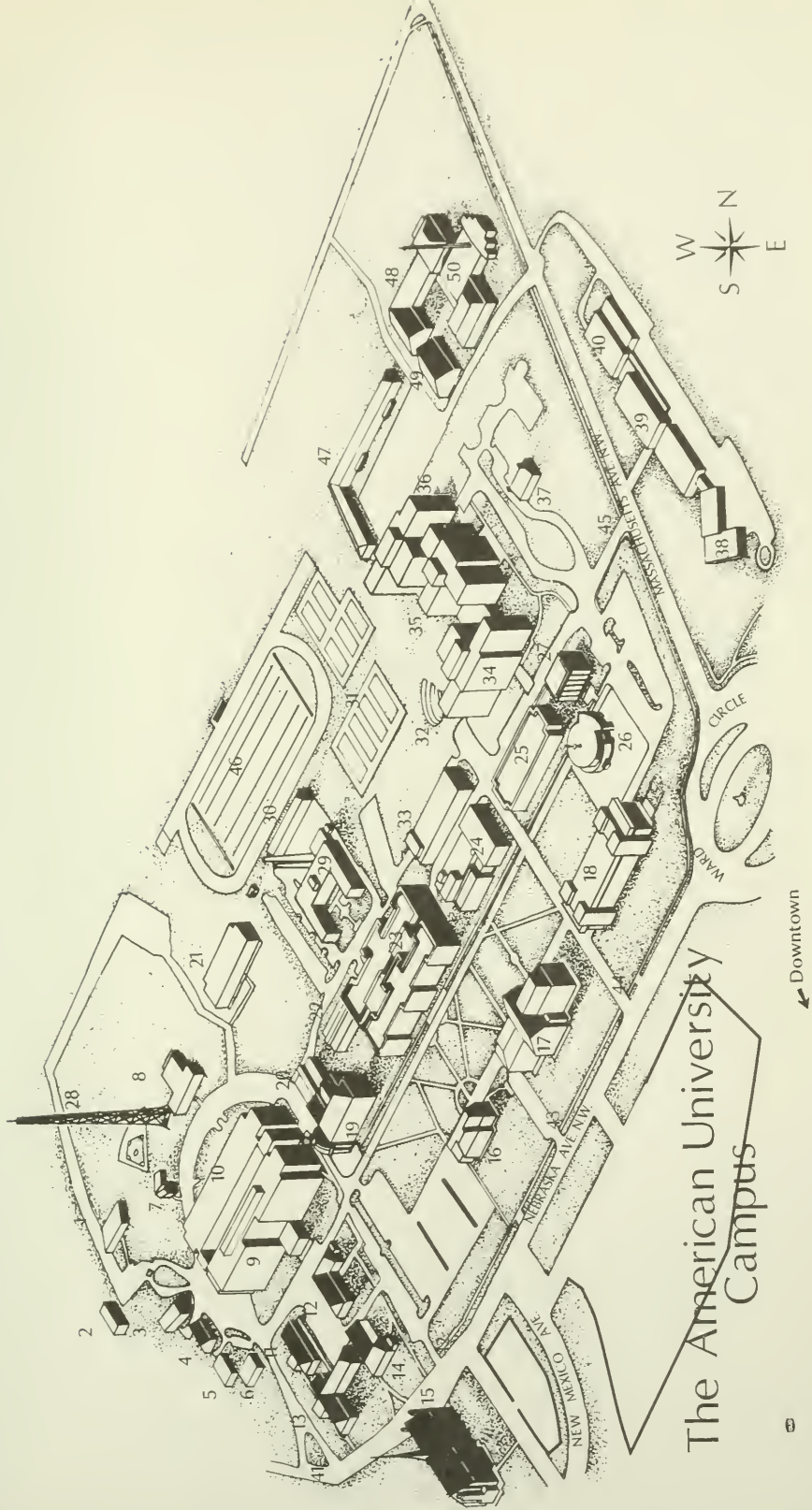
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